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# Hunting for Petroleum

By ALVA AGEE

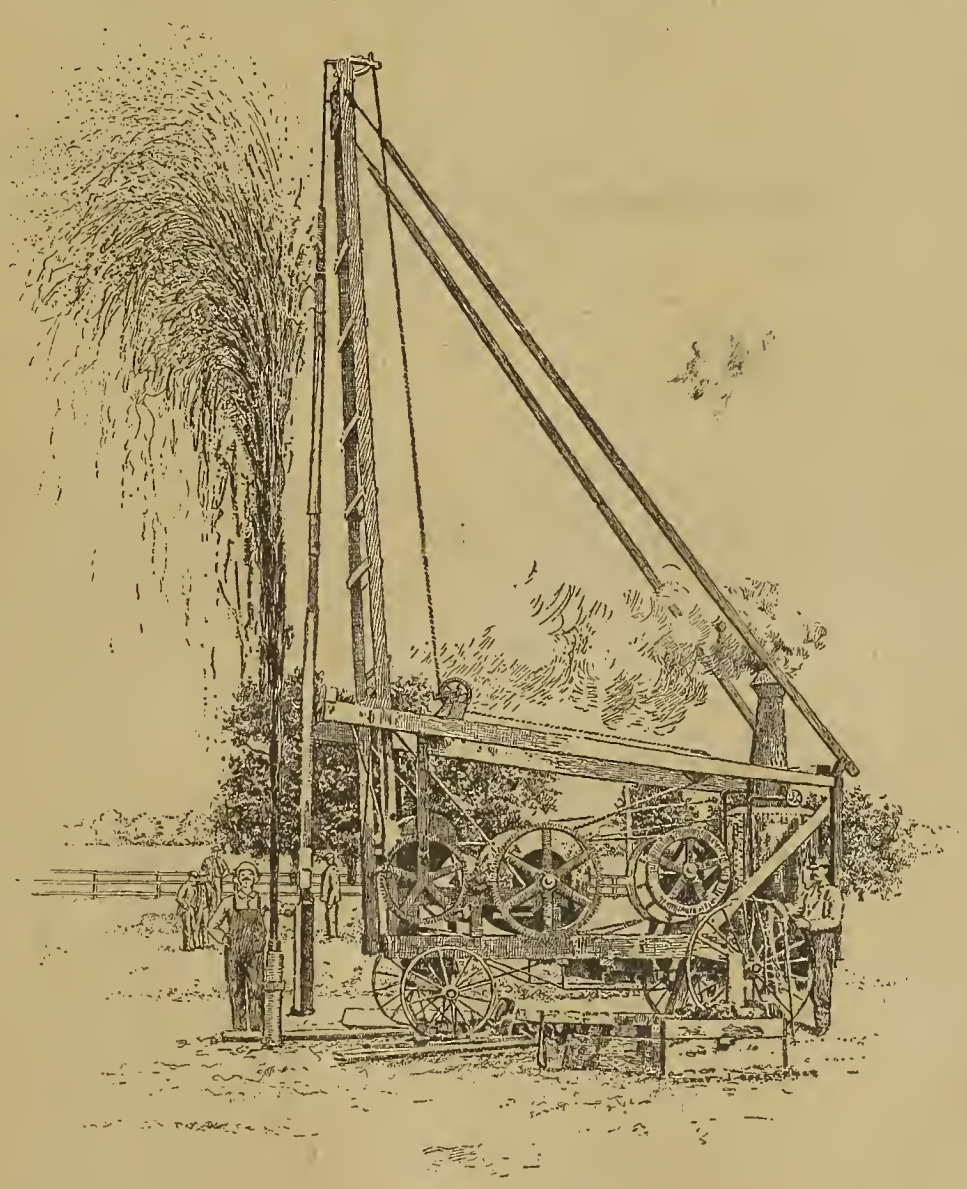
FOUR plumb-lines, let down from the four corners of any piece of land and meeting at the center of the earth, would mark the four sides of the property conveyed by deed when one buys land. The surface usually contains all the value for the farmer, so far as is known, and its productiveness determines the owner's income. There is no expectation of other receipts than those gotten from agricultural products. The income is reasonably well fixed within certain bounds, and the scale of family living is adjusted to it with more or less success. But the land may contain unknown mineral wealth far in excess of its agricultural value, and its discovery and conversion into money have produced some rapid and dizzy changes in human lives.

A line drawn in a southwesterly direction from Olean, in western New York, would pass for three hundred miles through a district rich in petroleum. Large "oil-fields" extend for fifty miles on each side of the line indicated. The determination of their boundaries and the location of the pools is a work that continues to call for the expenditure of vast sums of money. The most experienced operator cannot make even a shrewd guess concerning the location of an untested pool of oil. Surface indications are usually entirely worthless.

In this oil territory, which is only one of several great producing districts in the United States, there are several "oil-sands," as the various strata of oil-producing rock are technically known. A shallow sand—a stratum only a few hundred feet below the surface—may be a producer for years, only to yield in importance later on to a sand three thousand feet deeper which has been penetrated by the bit of some driller who had orders to go down to this stratum regardless of expense. Literally hundreds of millions of dollars have been expended upon "dry holes," as non-producing wells are called, testing the various oil-sands and defining the boundaries of the pools. This money is invested chiefly, it may be, by operators who have income from producing wells, though vast sums have been used by small companies and by individuals that have been seized with the "oil-fever." So intense is this, and so hazardous is the business, that it is no uncommon thing in the oil regions to see a laboring man who has once been in the receipt of an income of one hundred dollars a day, the most of which has been spent in drilling new territory that proved to be worthless.

A suggestion of the presence of oil in a farmer's land sends the blood chasing through his veins. It means a chance of wealth and an end of struggling. The first herald of possibilities comes in the form of a speculator seeking leases. Usually he represents himself only, but talks largely of what his company proposes to do along the line of development. The air is full of rumors, and the selection of territory by this stranger is taken as an indication of the limits of a local oil-field. Farmers sign his leases, binding themselves by the terms of an instrument drawn carefully in the speculator's interests. Usually a year's time is given for the beginning of a well, and one eighth of the oil is to be the landowner's share. Then the speculator disappears, seeking a market for his options. He offers these leases to various operating companies, and often without success. Again and again leases may be taken on this new territory, costing only the time of the promoter, and suffered to expire because no capitalist is ready to risk the thousands of dollars a test-hole would cost.

Finally a true "wildcatter" is attracted to this section. He belongs to the class that takes big risks for possible big profits. Where leases on big areas cost nothing, the discovery of a rich oil-field means great wealth. For some reason he believes that it is business to risk a few thousands of dollars right here, just as he has done in many other places, occasionally finding a good pool of oil that provides revenue for more testing in unexplored territory. With leases again secured, finally come the carpenters—expert builders of derricks—and lastly the drillers appear. The site for the test-hole has been chosen partly with reference to convenience to water, and partly as the result of some predilection the oilman has for that particular spot. The height of the derrick and the size of the drill depend upon the depth to which the hole is to be put before abandoned.



The first well in new territory goes down slowly. There are many obstacles. The nature of the rock—all earth is "rock" to oilmen—is not known, the number of water-bearing strata is yet to be learned, supplies and repairs are not near at hand, and the man or company thus "wildcatting" may get short of funds. If the work is being done by local and inexperienced capitalists who had lost faith in the coming of regular operators, they are at the mercy of their drillers, who may delay the work to their own advantage, seeking to secure a share in the leases for themselves for a trifle, or merely prolonging the term of their employment. The delays are readily caused by losing their drill in the hole, by dropping steel implements down, and by various other well-known devices. Sometimes these men are in the pay of operators at a distance, who want to know of the first indications of oil, and then to have the local company worn out by vexatious delays in order that they may acquire the leases. Local attempts to develop new territory are very unsatisfactory. But if the test is being made by our experienced "wildcatter," he has his trustworthy drillers and knows what he is doing.

In time the sand is reached and entered. If it be thin and close in texture, affording no signs of a producer, the tubing is withdrawn, the hole is plugged below the lowest water-bearing stratum, to prevent salt-water from entering the sand—a requirement of law—and the outfit is shipped away for a venture in some other field. But if some oil is found in fairly thick rock, a charge of sixty to one hundred and twenty pounds of nitroglycerin is lowered into the hole and exploded. This shot shatters the stratum containing the oil, so that the fluid reaches the hole more easily. If there is not sufficient gas to force the oil out, pumping is resorted to. The yield may be anything from one barrel to five thousand barrels a day, though the latter figure is extraordinary, having been reached by only a few wells. The price a barrel, delivered in pipe-lines running from the producing districts to the refineries, depends upon quality and the will of the great refining companies. It now ranges from eighty cents to one dollar and twenty-five cents a barrel.

If the first well in new territory is a good one a motley crew immediately swarms in. Agents of the great oil producers are on the grounds watching their chances of getting territory; speculators are seeking to secure all unleased land; contractors, drillers, dealers in supplies of all kinds, laborers and gamblers take possession, and the quiet, rural scene is rapidly changed by the rough, dare-devil crowd that attends the development of a new field.

The big question now is, In what direction does the pool extend? Is the first well on the edge, and if so, what edge? Adjoining land may be worth one thousand dollars an acre to the operator, and it may have no value at all; everything depends upon the location of the oil. Petroleum lies in the pores of the rock, and this rock varies in thickness and texture. An area of open, thick, rich rock is the pool into which each operator seeks to put his wells. Deceit and trickery are common weapons until the leases on the valuable territory finally find their way into the hands of the large operating companies. Test-holes at a distance from the first well, determining the extent and direction of the pool, are guarded by owners, watched stealthily by holders of intervening leases, shut down, plugged, opened again—every move intended to throw others off the true scent and to enable the owners either to sell their own leases at a good price if the hole is dry, or to buy others' leases at a low price if the new test-well is a probable big producer.

In time the ownership of the leases is fairly well adjusted to the satisfaction of the bona-fide operators, who are as a class square in their dealings with each other and with landowners, and development proceeds in an orderly way. If the field is a rich one wealth rolls in upon the farmer as well as the operators, and there are transformations in family ideals and modes of living that are oftentimes as pathetic as they are ludicrous. This applies especially to sections where the soil is excessively poor and the family incomes were previously very meager. On the other hand are thousands of instances in which the unexpected income from oil has proved a real benefit to families that were able to make proper use of the wealth that came without effort. However, it is an accepted fact with thoughtful men who have watched the development of oil-fields that the discovery of oil is not a boon to any agricultural community. Individuals profit thereby, but home value is destroyed, and the tone of the community is distinctly lowered. The discovery of oil means disruption along many lines; but so long as money is craved, the oil operator will be accorded an eager welcome by every section.

THE FIGURES of the Treasury Bureau of Statistics show that the exports of illuminating-oils from the United States have increased from 204,000,000 gallons in 1875 to 721,000,000 gallons in 1900. In the quarter-century from 1876 to 1900 the total value of mineral oils exported from the United States was about $1,200,000,000, an average of about $48,000,000 a year, and during recent years has averaged about $60,000,000 a year, or $5,000,000 a month.

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## WITH THE VANGUARD

BUSINESS farmers can profitably read, digest and apply the following sound and conservative opinion of the "Breeder's Gazette" on the up-turn in stock-breeding:

"The casual observer of things agricultural evinces surprise at the up-turn in values of improved stock; the student of the industry traces cause and effect. Those of shallow knowledge see what they believe is a spasmodic movement, a 'boom.' Those who keep posted understand that the law of reaction is positive and permanent, and know that the present stupendous movement toward live stock is rock-bottomed on natural and commercial conditions. Many are the Rip Van Winkles now rubbing their sleep-dull eyes and wondering where they are, marveling at the changed conditions, almost refusing to believe the evidence of their own eyes and ears. They apparently have taken no account of the development of a decade; they have no realizing sense of the material progress of the people; they seem to think that the law of growth has been arrested in this country and the world while they themselves slept. It is indeed a great awakening. It is a deluge. But the premonitions of the arousal were plainly heard by the observant; the pattering of the rain that presaged the flood was audible to the educated ear.

"In the matter of our beef stocks, the activity in which is now an occasion of wonder to those who have not kept in touch with the facts, it has simply been a case of burning the candle at both ends. The law of supply and demand is no less inexorable than that of gravitation or any other law of the physical universe. Why is beef at its present high price? Why do men bid freely for high types of improved animals of the beef breeds? Why are the dairy breeds feeling the awakening? In 1900 we had in this country ten million less cattle than in 1892. At that time the population increased over ten millions. In 1892 we had eight hundred and twenty-six head of cattle for every one thousand of population. In 1900 this ratio had fallen to five hundred and eighty-five cattle to every one thousand of people. During the eight years intervening between the years named we lost on an average over one million cattle a year. To maintain even our present ratio of cattle to population we must show an increase of about one million cattle annually, and when these figures are added together some understanding of the present situation should be easy of grasp by the most uninformed mind.

"But this is only one part of the explanation. Real estate is invariably the last of all commodities to feel the effect of fluctuations in values. It is the last to lose its value, it is the last to respond to better times and conditions. Gigantic commercial ventures have absorbed vast amounts of the nation's wealth the past five years. Great movements in securities are now holding the attention of hundreds of thousands of capitalists. But some are already turning toward the soil as the surest of all holdings, as the most stable of all properties, as the most satisfactory of all investments. Herein is found more than a hint of the cause of the activity in the present market for improved live stock. Men of money are turning toward farm properties. Such activity as has characterized the industry the past two years is bound to attract investment. Funds are lying idle, seeking places which insure reasonable returns. A few wealthy men are entering the business of stock-farming largely for the fun of it, but most of them are seeking an investment for their funds. With such conditions, with humming commercial life, with broadening markets across the seas, with large production of export products, with materially increased domestic consumptive capacity, the only wonder is that the movement has not gone forward by leaps and bounds instead of the steady flow like a resistless tide."

THERE are," says the "Crop Reporter," "many indications of the approach of a new era in rice production in the United States. For the last thirty years rice has been the one cereal of extensive use of which this country has produced an insufficiency for domestic needs. Lately, however, the area in rice is being enlarged, notably in Louisiana and Texas; production in the rice-growing belt is gaining on national consumption, and an approaching change in the existing relation between domestic supply and demand is already being anticipated by commercial efforts to increase the uses, and thereby the consumption, of rice in this country, and even by suggestions of the possible need of foreign markets in the near future for a prospective surplus.

"The average yearly consumption of cleaned rice in the United States for the past ten years has been not far from two hundred and fifty million pounds, and the average production about one hundred and fifty million pounds, leaving a net annual average of about one hundred million pounds to be supplied by importation. In the last year of the decade, however, there were indications of a decided increase in both domestic consumption and production, and also of a significant lessening in the difference between them. Apparently the consumption of rice in the fiscal year ended June 30, 1900, amounted to upward of two hundred and seventy-five million pounds; the production in the same year was about two hundred and twenty million pounds; or, in the fiscal year 1899–1900 the production of rice in the United States was only about fifty-five million pounds short of supplying the domestic needs."

THE "Weekly Financial Review" in considering the indications of future prices says:

"With easy money, July disbursements, good crops, large railroad earnings and good general business in sight there is every prospect that the market will gradually harden and improve if left to itself. What it will do under manipulation remains to be seen. The speculative spirit is abroad, and is likely to follow any good lead until some accident or reaching the exhaustion-point induces a set-back. Easy money is likely to prevail until the crop demand begins in August. Last week's drop in the bank reserves was a surprise; but as this was due to transfers connected with important stock deals it exerted only temporary effect. In all the principal money markets of Europe easy rates prevail, as illustrated by the reduction of the Bank of England rate to three per cent, and with increasing supplies of gold from the Klondike and the Transvaal, in addition to other liberal supplies, there is little prospect of any immediate stringency. The June government crop report indicated a heavy wheat crop in sight, with the possibility of beating the record. Some estimates went as high as six hundred and eighty-three millions, and others six hundred and seventy millions. Last year we had a crop of only five hundred and twenty-two millions, so that we are comparatively sure of another year of prosperity for the farmers and the railroads, with a liberal margin for later damage from weather conditions.

"The wonderful demand for iron and steel has carried us into a new record for their manufacture, which is now going on at a rate of over three hundred thousand tons a week in excess of last year's great output. And in the face of this stocks at furnaces show a decrease. Railroad earnings continue to make very handsome gains; hence, confidence in railroad securities is well maintained, even at present high prices. The latter are, as everyone knows, very largely due to the great consolidation movement which is rapidly placing our railroads in the control of a few men, and insuring more stable conditions of railroad management. Speculative operators are of course using this leverage on the market for all it is worth, and while stocks are so largely concentrated in strong hands, as at present, their ability to lift prices is unusual. It should be remembered, however, that the big men have stocks to sell, and that as heretofore they will lessen their holdings on a rising market. This transfer of stocks from strong hands to weaker ones is the danger-point that must be watched, and we are constantly drawing nearer to it."

ON THE relation between labor-saving machinery and the demand for labor the "Monthly Farm Machinery" says:

"Far from overstating their case, those who justify the machine on the familiar plea that the final effect of labor-saving machinery is to cheapen product, increase consumption and so enlarge, rather than diminish, the chances for employment of labor, usually present the case with far less cogency than lies in the facts. The demand for laborers is greater to-day because of the labor-saving machinery that has been installed in the past. There never was a labor-saving machine employed but that increased the demand for laborers. If we were to stop manufacture of labor-saving machinery to the extent of one hundredth part of the current product it would throw millions of men out of employment and thereby furnish so appalling an object-lesson of the value of labor-saving machinery as a factor in the widening of the field for labor as to settle the controversy forever.

"Those who denounce agricultural machinery should think that if we were to stop its manufacture what would become of the hundreds of thousands of working-men who are employed exclusively on this class of product.

"The stage-driver objected to the steam railroad; but there are now millions employed on railroads or in manufacturing railway equipment where there were hundreds only of stage-drivers.

"Labor-saving machinery in any field widens the demand for labor. Suppose we stop making iron flasks, clamps, patterns, core-boxes, ladles, trolleys, tumbling-mills, cupolas, etc., a different kind of mechanics, working other kinds of materials, would take the place of some thousands of molders who are now employed. And because the facilities thus provided would be immeasurably less efficient the aggregate product would be correspondingly smaller, and society would be commensurately poorer.

"When canals were first built in England laws were passed prohibiting their being built nearer than six miles to any village or city, in order that teamsters and other carriers would not be deprived of their business. The mistake was soon seen, and later canals were built through the very centers of the towns, and furnished employment for many more men than could possibly engage in hauling from the earlier canals to markets. It practically involves the same idea when labor-saving machinery is denounced 'because it takes away employment of men.' To every man displaced by machinery positions are opened in other ways for at least two, and generally positions of higher class, as the more machinery introduced the higher intelligence required for their successful operation, manufacture, etc. It is strange that old ideas (as of the canals, hundreds of years ago) still find advocates among intelligent people."

## THE ON-LOOKER

A SNOW-STORM had been raging all day long on top of the Allegheny Mountains, and Saturday night I was quartered in a good hotel, ready for the Sabbath's rest. It was nine o'clock when I remembered that an article promised for a certain publication was overdue, and should have gone out the previous day. Close by a steam-radiator I sat and wrote faithfully until midnight, when the "copy" was inclosed in an envelop for the mail. Returning to my room, I picked up a pocket-Bible from the table, and it opeued to a verse whose existence was a surprise: "It is vain to rise up early in the morning, to sit up late, to eat the bread of sorrows; for He giveth His beloved sleep." That was enough, and to bed went a weary body. The new publication was not a financial success, the article was not paid for, and the vanity of overwork was appreciated as never before.

Physical labor not only is honorable, but some of it should come into the life of everyone. It is not absolutely essential to health, as recreation not classed as labor may be made to take its place; but the performance of physical labor, with consciousness of its cash value upon the market, is an interpreter of the condition of the masses of our fellows, and a tie that causes acknowledgment of kinship. It would be a better world if everyone kuew by experience the amount of muscular exertion bound up in a dollar.

But much as some classes of our people need to know what purely muscular labor is, and what recompense is given it, they need it no worse than do some farmers need to know how futile it is to depend chiefly upon physical exertion for riches. Day's work at common wages has never made any one rich, neither has it afforded a high scale of living to auy family. The farmer who correctly values his time at the wage paid his man must in consistency approach the scale of living necessary to the employee, unless he have investment greater than that of the average landowner of this country. The truth is that his best income should be from skill in management, and if he have that skill then is his time not to be reckoned by the hours employed in the field, and any excess of labor that interferes with the exercise of the skill impoverishes by just so much as his brain exceeds in value his muscle.

I have seen farm-life made repellent to the young by adherence to habits that obtained in an early day, when brute force wrung a living from land prepared for tillage by the hardest labor. It is vain to rise up as early as three or four o'clock in the morning, and to labor until the sun goes down in the long days of summer. "But," says my criticizing reader, "the work could not be done otherwise." Then try having less of it. Labor-saving implements are for the saving of labor, not for such increase of crops that the labor burdens more than ever. It is skill that makes possible the fine house, the carriage and other luxuries of life, not hard labor merely. The muscular energy put into life by successful farmers does not have a value at all proportionate to the money expended by them. Skill is in partnership with energy, and is the controlling partner.

Said an observant friend to me, "Two young fellows came to-day for loans. Each has bought a small farm, and wanted one thousand dollars to add to his capital for the first payment. One is a robust fellow, full of hard work, and he will not spend an unnecessary dollar upon hired labor. The other fellow is an alert, thoughtful man, but he has a pronounced limp, and can never follow a team full time. You may think me foolish, but I am banking upon the success of the second man rather than the first. He will have to take time to plan, to think, to use his head. I am afraid the other one will depend chiefly upon that strong body he has been given, and it takes more than muscle to pay for a farm nowadays."

In all this there is no depreciation of physical labor. Its performance has been my chosen duty. "In the sweat of thy face shalt thou eat bread." But its limitations I know, and faith is safely placed only in that true industry which in most walks of life means the free use of mind and body.

O—L.

## ABOUT RURAL AFFAIRS

**San Jose Scale** I have just cut down, gathered up and burned my entire lot of June-berry bushes. For a week or so I noticed that the bushes did not look as thrifty as usual, both bloom and foliage being quite scant, so that finally I took the time to make an examination. To my great consternation I found the bushes covered with the dreaded pernicious scale. As it is close up to the beginning of the breeding season it was high time for prompt action. The bushes were destroyed, but even then I was not satisfied until the stubs were thoroughly sprayed with kerosene. June-berries are probably in greater danger of infection in this respect than almost any other tree or bush, for the reason that birds are very fond of the berries, and during the early breeding season of the San Jose scale congregate on the June-berry bushes in flocks. While I lose this year's crop of this desirable fruit, I expect that a new lot of sprouts will come up, free from scale, of course, and be ready to produce a full crop of berries next year. To what extent I shall succeed in keeping this scale under control in the orchards by spraying with crude petroleum remains to be seen. The coating of vaseline resulting from the petroleum-spray still remains on my pear and apple trees, and I am in hopes it will not allow the old lice to breed on the sprayed portions. But on my larger apple-trees I am sure some limbs, or portions of limbs, were not hit by the spray, and these spots will undoubtedly continue to make trouble unless I can succeed in killing the young by spraying with kerosene emulsion or some other effective remedy.

It does not seem to me likely that the nurserymen and the horticultural paper that scoffed the idea of the perniciousness and dangerousness of the "pernicious" scale, and ridiculed the fears of fruit-growers as groundless by calling the whole thing a "bugaboo," could (if they were honest) have fully understood the true state of affairs. A foe that you will have to fight early and late, year after year, and that will destroy your trees and bushes just as soon as you let up or weary in the fight the least bit, is more than a bugaboo. Nurserymen may look at it from their own standpoint. They have their blocks of small trees in nursery rows, and these are easily treated by spraying, so that there is no great difficulty in keeping the scale in check. But the fruit-grower does not find it quite so easy to spray large trees in such a way that the insects are all reached and disposed of. Yet we must carry the fight to the end, if we have to cut down our large trees and plant new orchards.

**Exposition Notes** The crowds that filled the grounds on the official opening day (May 20th) to an uncomfortable degree already gave indications of the packed condition of the Pan-American later on, when the "outsiders" begin to flock in. My advice to those who wish to take in the show in comfort, and see all there is to be seen without being jostled about and crowded away from the best positions, is to come early. With only about one hundred and twenty-five thousand people in attendance on May 20th it was anything but fun to push one's way through the United States Government Building, and especially the fishery exhibits. Wonderful changes have been made in the appearance of the grounds during the past few weeks. By the time this gets in print the exhibits may be expected to be all in and the show about at its best, the colors yet fresh, the air balmy and sweet, and the horticultural show in flowers, bushes, trees—both outdoors and inside the Horticultural Building—at the height of perfection. The sooner you can manage to come after this, the better chance you will have to enjoy the sights, and the better your accommodations. The big crowds come later, and probably with them the heat and the dust. Water, however, is plentiful here, and lavishly used for sprinkling in dry weather and for cooling the air in a very hot time.

I have made it a practice whenever I have a chance to see a classic play, such as "Hamlet," "The Merchant of Venice," "Macbeth," etc., or to hear a grand opera, to hunt up a copy of the play or the libretto of the opera and study it very thoroughly a day or so before, and then note the interpretation given to the characters by skilful actors, or listen to the music with full understanding. I surely would advise every one of my friends who intend coming to the Pan-American show to adopt a similar course. By all means secure all available literature about the Exposition, plan of the grounds and the city, and try to get familiar with the surroundings and conditions. Study the Exposition, then go and see it intelligently and systematically. Thus you will get the most good out of it in the shortest possible time. On the other hand, if you can spend weeks here, and hundreds of dollars, you may be justified in just letting things drift along. You may go and come wherever chance or whim leads you. Whenever you come, however, don't forget to bring a little memorandum-book along with you. There are many things of interest of which you may wish to tell when you get back home. Note them down as you come across them. You will also see a good many new things in every possible line of occupation—farming and gardening tools, household articles, etc. You may lose the circulars that are given you by exhibitors, but write down the names of articles and the addresses of the makers.

**Counting the Cost** The great question of all questions for intending visitors is, Where to sleep and how to feed. This question is the one which touches most deeply the point of expense, unless you have a good friend in the vicinity of Buffalo who will solve the problem for you. You can easily find out what the railroad fare will be from your place to Buffalo. The railroads have made some reductions, and will make far greater ones later. A paltry nickel will carry you from any part of the city to the gates of the Exposition-grounds, and another nickel will carry you back. Even these two trips may be saved, for there are hotels and boarding-houses close to the gates, and within easy walking distance. Buffalo is well provided with good hotels and boarding-houses where lodging and meals may be had at from one dollar a day upward. In some large down-town restaurants a good meal can be had at twenty or twenty-five cents, all an ordinary person can eat, and of very fair quality. In the big Ellicott Square restaurant the twenty-five-cent meal consists of soup (choice of two kinds), three or more kinds of meat—very good roast beef among them—vegetables, sherbet, pudding, pie and ice-cream, coffee, tea or milk. Such a meal is good enough for anybody. The same management has a mammoth hotel just outside the grounds, where a good room and two good meals a day (breakfast and evening dinner) may be had for from two dollars to two dollars and fifty cents a day. If you desire to live in style, and pay for it accordingly, you may select one of the high-grade down-town hotels, and pay from four to ten dollars a day.

My plan would be to engage a room somewhere in the city. It may cost you fifty cents, seventy-five cents or one dollar a day, according to location and quality. I should prefer to be free to take my meals wherever I wished. Take a good, substantial breakfast, and if possible have a lunch—a couple of sandwiches or the like—put up to bring with you. Outside of the grounds you can get good ones at five cents apiece. Then start for the grounds to stay all day. At noon eat your lunch, and if you wish you may step into one of the numerous restaurants on the grounds and buy a good, big cup of coffee, with milk and sugar, for a dime. The sandwiches in these restaurants are small, and cost ten cents, while the lady waiters seemed to be inexperienced and ridiculously slow. If you feel like paying seventy-five cents or more for it you can get here a fairly good steak or other plate of meat. I have tried to find a good meal at a reasonable price inside the grounds, but thus far have not succeeded. There are places where you can get a regular meal at thirty-five cents; it is a meal which satisfies some people, but the Italians (Venice in America) serve poor macaroni too freely to suit my taste, while the French restaurateur puts in too much seasoning. The fifty-cent meal in an "American Inn" is hardly a credit to America. Altogether I believe it is by far the safest plan to bring a lunch, and then get back to the city in good season for a hearty evening dinner. From these data you can easily figure out your expenses a day. The admittance to the grounds is fifty cents, and for this you have a chance to see enough to keep your eyes busy during a good many days. A close examination of the Midway, however, will add largely to your expenses. Here you will find some good things, and some fakes.

T. GREINER.

## SALIENT FARM NOTES

**Hired Girls** "What about the hired-girl question?" asked several readers of the FARM AND FIRESIDE. Says one, "You have said considerable about the hired man; now tell us how to manage the hired girl." Well, during the years that I was a hired man I became acquainted with quite a number of hired girls, and found many of them to be very nice young women. Most of them disliked their occupatiou very much, mainly because it was not considered "genteel," and, in their opinion, severely handicapped them in the race of life. In the newer sections of the country the fact that a young woman was a hired girl did not in the least interfere with her prospects or lower her in the estimation of the young men; but in the older sections it did, and does to-day. It is an undeniable fact that this is the principal reason why good, efficient hired girls are so scarce. To be a "saleslady," or something of that sort, is genteel, nice. To be a hired girl is plebeian, common. I have known hired girls who were treated like members of the family, and others that were treated like army mules. One day I overheard an old farmer complaining about his ill-success in seeking for a girl. Said he, "I've bin a-huntin' all day for a hired gal, and kim home without one. I found forty gals as wanted to marry, twenty as wanted to teach school, but not one as wanted to work!" He wanted a "gal" to arise considerably previous to the lark, make a fire in the stove, prepare breakfast, then milk three cows while the family ate, so that said cows might be driven to pasture by the boys immediately after breakfast and without loss of time. Then after she had picked over the scraps remaining, to vary her labors in the house with sundry trips to the pig-pen with buckets of slops, skim-milk, etc. Owing to the late hour that supper was disposed of she would be unable to seek her downy couch before ten or eleven o'clock. "Five or six hours' sleep is plenty for a young pusson!" said the old man. He thought that girls should jump at the chance to work for him for one dollar and a half a week and board.

Whether a girl is satisfactory or not depends more upon her employer than upon the girl herself. Some women and their hired girls live further apart than the poles. They have nothing in common. The mistress knows nothing about the maid, nor the maid about the mistress. One is the "lady of the house," the other "the servant." One gives her "orders," the other performs the tasks, usually in her own way, and not often satisfactorily because of ignorance or lack of supervision. "Mistress" and "servant" is well enough in wealthy families in the city, in fact it could not well be otherwise, but in the country it is different. The farmer's wife and her hired girl live together even more than the farmer and his hired man. Both work at the same tasks, and can, if they will, be mutually helpful in a thousand ways. Very often the girl is a daughter of a neighbor, sometimes a tenant-farmer, or a small farmer with a large family, or a widow. Then if the mistress is one of those who treat their girl like a daughter, that girl truly is in luck, and often she remains in the family for years. I have seen a farmer's wife helping her hired girl to fix herself up when she was going to a party in the neighborhood as though she was her own child.

Everywhere there are people who are fairly well-to-do who are constantly wanting a cheap hired girl, and very often it happens that these are the ones into whose clutches fall the little striplings of poor widows or hard fathers. I once heard a big, strong woman who was generally "ailing" boasting of how cheaply she got her house-cleaning done the previous spring. She hired a little fourteen-year-old girl, the daughter of a widow, with the understanding that she was to keep her all summer and pay her fifty cents a week if she suited. "That week," said she, "we cleaned the house from top to bottom, and I made that girl just hump herself! When that job was done I had no use for any girl, so I gave her fifty cents and sent her home." I learned later that the little thing was sick several days after she was sent home. I have a little girl of my own, and as she sits on my knee I sometimes wonder if life has any such fate as that in store for her! Heaven forbid! There are some girls that naturally are no good, but the great majority are all right when treated right. Some of the nicest young women I know are hired girls. Treat a good hired girl like a daughter. Some day your daughter may become her hired girl!

FRED GRUNDY.


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# OUR FARM

## FARM THEORY AND PRACTICE

NUMBER OF CORN-PLANTS AN ACRE.—Some of the stations have made experiments to determine the right number of corn-plants to grow on an acre of land for best results. So much depends upon the kind of soil and the variety of corn that the results obtained must be carefully studied before they can be accepted as a guide by the individual farmer. In these experiments grain is, of course, the chief consideration. Outside of the heart of the corn belt there is an immense number of growers on a comparatively small scale, and with these the yield of grain should not be the only, and often hardly the leading, consideration. An acre of stover provides as much nutrition for animals as an acre of timothy hay yielding one ton. If the stover of all the crop is needed for farm feeding, often saving its equivalent in hay for market at a good price, its quality is important, and that is affected by the variety and number of stalks. Regarding only the grain, there is a tendency to plant the largest possible varieties, thinning down so that the ears may be long and full, while some smaller variety, with more stalks an acre, would give an increased value in stover greater than the loss in grain. No rule at all can be laid down, and I call attention only to the fact gained by experience, that it pays to have more stalks in the row when all the stover is used rightly than we are inclined to have when the crop is measured only by the number of big ears of grain.

THINNING POTATOES.—Those who use small potatoes for seed usually get more stalks in a hill than they like, and the question occasionally comes, "Would it pay to thin them out?" This has been tried by many persons, and I know one extensive grower who finds it profitable in his large fields. It is my own experience that such thinning does not accomplish as much as the thinning of corn. In the latter case each plant is as thrifty for a time as it would have been if standing alone, while in the case of the potato a large number of plants coming from the same seed causes weakness. We want a hardy, thick sprout from the start, and while the thinning helps, the remaining plants never become as heavy and strong as they would have been if the same amount of potatoes had never fed more than two sprouts. More than this, the thinning disturbs some of the plants that remain, unless the work is very carefully done. I should prefer to have the thinning done if there are many plants from a single small potato; but it is much better not to have the extra plants, and this is secured by using larger tubers for seed, cutting to pieces of two or three eyes.

Where ground has been hard-packed by rains after planting this late season, good, close cultivation is needed. The potato will not thrive in a packed soil. For such land a deep cultivation, almost under the row, should be given as soon as possible after all the plants are up nicely. This cuts off some roots, but it gives loose soil, and if after-cultivation is shallow the new roots quickly fill the well-loosened soil, and there is a chance for a yield that is not possible to a soil hard-packed right after planting.

DRAINING HILLSIDES.—Our heavy rains last spring soaked the earth, and all "spouty" land has shown its worst side to us. Wet-weather springs have soaked the surface worse than usual, and tile underdrains have not always done the good that was expected. There appears to be only one reasonably sure way of catching the water of springs in a hillside, and that is to use stone or other coarse material to form a sort of a catch-basin for the water, so that it may be led into the tile. The use of a "Y" below and on each side of the spring when made only of drain-tile is not sure to do the work. If heavy rains puddle or pack the ground, some or all of the water may get away and go soaking the surface toward a lower level. A "Y" made of stone, drawing all the water down to the mouth of the tile, is much surer. In draining such land one difficulty has been the tendency of the springs to change their location. In some way the course of the water forming the wet-weather spring is diverted, and the water may appear two or three rods above or at one side of the old place. This makes the management of "spouty" land all the more puzzling and discouraging. It does not pay to cultivate wet land, and the underdrainage of wet land that contained no springs is about as satisfactory work as I have ever undertaken on the farm; but the control of water from springs is not so sure and permanent as I should like to have it.

SEEDING TO CLOVER IN MIDSUMMER.—We hear less of crimson clover than formerly. In Delaware, southern New Jersey and limited sections elsewhere it is giving satisfaction, and throughout many Northern states there are farms on which this clover is seeded regularly; but the great majority of farmers who tried it will say that it is not reliable. We have learned, however, that the common red clover seeded by itself on good soil in July will often make a fine catch and go through the winter all right. In fact, where the crimson does quite well many prefer the red seeded at the same time. On poor land neither will do well, as it is not sufficiently well rooted by winter; but in our truck-patches and gardens, which are usually fairly fertile, we should learn to sow more red clover after the early crops. It is sown in corn-fields at the last cultivation by some farmers with success.

Where red clover fails in wheat it is oftentimes possible to get a good catch of clover by seeding alone in the spring. This means the loss of the use of the land for a year, and the plan cannot come into general favor; but where clover is wanted badly, and the soil is not in condition to produce a paying crop of anything else, I urge a trial of this method on a small scale. I have secured rank clover on thin land by seeding alone in the spring that paid well for loss of use of land. Two or three clippings with the mower should be given during the summer to keep the weeds down and to make the clover branch. The mulch protects the roots, and the hot sunshine does far less damage to such exposed plants than it does to the tender ones that in wheat harvest are robbed of a heavy protection to which they have become accustomed. DAVID.

## THE CRAVING FOR LAND

Many have it in this country. Is it wise to foster the desire for great possessions in land? It seems to me not.

My mind has been turned just now toward an instance which leads me to believe that we might better be satisfied with smaller holdings than to be always reaching out for more. An old man has lately died in this neighborhood who was the embodiment of the craving for land. When a young man he worked out and got a few hundred dollars, which he invested in land. That was all right. There is, and can be, no surer way of laying out money than this. But the appetite for land seemed to grow. Instead of settling down on his farm and cultivating it in such a way as to make him and his happy, he began to reach out for more. Little by little he increased in landed property, until at the time of his death he had no less than six large farms, besides several smaller pieces of land. By many he was known as a most successful farmer.

But let us see. In the nature of things this man could not do the work on all this land himself. He let the farms to tenants. For a time, so long as he could personally attend to them, and while the era of high prices was with us, he made the farms pay. Then there came a different time. He was beginning to break down. He had not only worked his hands hard, and his own immediate family, as well, but he had broken down his own health. He became partially paralyzed, and for several years prior to his death he lay on his back, a most pitiful object to behold. Now things began to go to the bad. As tenants will, his renters became careless. The buildings showed signs of decay. Taxes were heavy. Running expenses grew greater and greater, and when he died the farms had deteriorated in value in a decidedly marked degree.

Now these farms have been sold at a partition sale in the process of settling up the estate. The result of that sale is not astonishing when one takes into consideration what neglect will do for farms and farm-buildings. The average price realized at the sale was only about seven dollars an acre. The only good thing which grew out of the matter was that some poor men were enabled to secure a farm at a low figure. But think of the hard work and the outlay of money which will be necessary to bring the farms back to their former state of cultivation! It is very doubtful whether any one of them will ever see their old-time degree of prosperity.

Now the question is, Did it pay the old man or any one else to thus indulge his passion for the accumulation of farm property? Was it worth while for him to make a slave of himself and everybody else belonging to his household for the sake of seeing his name in half a dozen places on the assessment roll of his township, and of hearing himself spoken of as the largest land-holder in that part of the country? He was a man of good executive ability, and if he had been content to till one good farm as it should have been tilled, leaving the rest to some one else, he might have made a marked success, accumulating just as much property, and enjoying himself far better than he did.

The man who will yield to the craving for land is not apt to be quite as good a citizen as the one who undertakes less and has time and strength to give some of his usefulness and talent to the public service. I do not mean that he should necessarily hold public office—though this may come to him sometimes—but I do mean that no man does his whole duty to the community in which he lives who does not take an active part in all its affairs, attending the primaries, the elections, and all other meetings which are held for the common welfare. This the man cannot do whose entire time is engrossed in the care of his farm property.

Then, again, the man who gives himself up to the piling up of farms and lands cannot make as good use of any of them as if he devoted himself to the better culture of a smaller place. The man who truly succeeds on the farm is the thorough man, and the man who scatters his forces cannot be thorough. His buildings will lack a little in their appearance and usefulness. His fences will not quite be what they should be. His crops will show certain signs of haste in cultivation; and, more striking than all else, in his personal appearance there will be a look which belongs only to the careworn and the overworked. He has no time to keep up with the world and its doings. If he speaks of public affairs at all it will be in their bearing upon his own money matters. The world and society are subjects of thought or conversation only when his personal interests are touched.

What does such a man miss? He misses the true object of life, which is, as I look upon it, to grow, better one's self, and help others do the same. And the game is not worth the cost. Do you think it is?

EDGAR L. VINCENT.

## THE FARMER AND THE LIBRARY

The greatest boon ever conferred upon farming communities by the United States government has come with the dawn of the twentieth century. It is that of free rural-mail delivery. Through this new agency isolated people may come in contact with the great outside world through the medium of the daily paper. As an evidence of this an example may be cited of a county in which in former days there was but one subscriber to the daily press, while at the present time sixty-nine families are reading the morning journal, and the death of the Queen of England was known almost as soon twenty-six miles from Tomahawk, Wisconsin, as it was in New York City.

Rural-mail delivery offers the opportunity for which those interested in library extension have long waited to secure for farmers the same privileges as those enjoyed by city folk, and should lead to the establishment of many new county libraries, or the conversion of city libraries into such institutions. Ohio already has two county libraries. In lieu of this the authorities of municipal libraries should extend their privileges to farmers without charge or by arrangement with the boards of surrounding settlements. Many rural-letter carriers will be found willing to collect the list of books desired, and deliver the volumes for a mere pittance. The drawback to the inauguration of the system rests, however, in a post-office regulation, which prohibits packages under four pounds in weight from being carried without being stamped at the usual book-rate, though larger parcels may be carried by private arrangement. This ordinance makes the issuance of single volumes somewhat expensive, and hinders the workings of the system. The advocates of library extension are working for the abolishment of the regulation as far as it pertains to the circulation of books from free libraries.

Traveling libraries have done a wonderful work in bringing good books into the homes of isolated farmers; but a traveling library has its limitations. It must cater to the wants of the many with its miscellaneous collection, thus neglecting the would-be scholar whose interest centers on a particular line of study. Again unless traveling libraries are constantly reinforced with new books but little opportunity is given rural readers to learn of new discoveries in science or of the world's progress from month to month. With rural free delivery of books an inquirer need not wait more than twenty-four hours for the receipt of the latest literature on a given topic. Such service will make free public libraries veritable sources of refreshment to those who will most appreciate and profit by the blessings conferred.—Miss L. E. Stearns, Library Organizer, Wisconsin Free Library Commission.

## A WORD ABOUT WIRE FENCES

The high price of lumber has forced farmers to resort to iron for fence material. Many are the patterns of wire fencing; several styles are constantly being advertised in our farm papers. I have had experience with numerous kinds. The regular woven fences are all good and are quickly put up. On level land they work well. On my rough lands I prefer to build my own fences of plain wire, eight and ten gage; but I find that such a fence is no fence unless it has several stays of wood or iron to the rod. Even woven fence is greatly improved by a few stays to prevent bagging.

Many farmers hereabouts are putting up just such a fence, eight to ten wires high, with five wooden stays to the rod. These are clamped to the wire with a specially devised wire-clamp and an inexpensive little lever-press. In building such a fence the wires need not be stretched taut, as the clamping on of the stays takes up the slack, and at the same time gives enough tension, so neither heat nor cold will affect the fence to any great extent.

In building wire fences of any kind it is well to put in heavy end-posts, and set them deep in the ground. The strength of wire fences lies in a great measure to the end-posts, which should also be well braced.

To facilitate the work of spacing the wires and have them come exact every time I take a piece of board three inches wide, and somewhat longer than the height of the fence, mark off the distances I wish the wires to be, and with a saw make cuts at every such mark an inch or more deep. Into these I slip the wires near each post as I move from one to the other, and staple them, driving the staple so that the wires will have just a little play. I also use this board or gage when putting on the stays; the wires will then be spaced just as I want them, and the fence will be a pleasing sight. It can be relied upon to hold the stock if you do your work well. The fence-posts should be set a rod apart, and ought to be peeled and seasoned. It is an easy matter to peel timber at this time of the year, before the bark dries on.

F. GREINER.

## HANDY WIRE-STRETCHER

I recently made a wire-stretcher which is very handy. Perhaps some of your subscribers would like to make one. It is made of a guard from an old mowing-machine cutter-bar. I got a blacksmith to cut off the two horns which project from the sides, and also to make an iron clevis about four inches long to go through the bolt-hole of

the guard and around the handle. Next I whittled out a handle of hard wood about three feet long. About two feet of it was made round. Eight inches from the end I placed the clevis, to hold the guard to the stick. The guard is placed on the left side of the handle, right side up. To use it, run the wire through the slit for the knife, put the eight inches of handle against the post, and pull on the other end of the handle.

EUGENE T. MURPHY.

## KILLING GROUND-MOLES

Ground-moles, aside from the damage they do to growing plants by lifting them or disturbing their roots, are rather a friend than an enemy. They are insectivorous, and it is in searching out grubs and cutworms that they make tunnels. These tunnels are merely traps, into which the worms fall and are picked up by the mole in his rounds. Persistent tramping in of his runs will drive him to parts of the garden or lawn where he will do no harm. However, if he must be killed, it can be easily done. Open his tunnel, saturate some waste with bisulphid of carbon, put it into the hole, and cover with dirt. The fumes will permeate the whole system of tunnels, and kill all animal life there. Don't poison grain; he won't eat it.

J. L. IRWIN.

# OUR FARM

## UNCLE SAM'S FREE LIBRARY

IT WAS the writer's fortune a few years ago to be a member of a surveying party engaged in locating the line of a new railway through an ordinary agricultural community. We boarded with the farmers along the line, sometimes remaining a week or more at one house. It was seldom that we lodged at any place which afforded much reading matter. The local newspaper and the family Bible were generally in evidence, and I will confess that I never in my life searched the Scriptures so diligently as I did on that trip.

For one never-to-be-forgotten week I was confined to a farm-house with a sprained ankle, and experienced all the pangs of literary hunger. After I had exhausted the contents of a file of alleged literary papers published in Maine I chanced to notice a case well filled with "Agricultural Reports." The black binding and gilt lettering were very familiar to me, as they had been annual visitors to my father's house through the courtesy of the congressman from our district. But as our home was well supplied with books I seldom opened one of the reports. Being fairly gorged with the very light literature of the Maine variety, I took down one of the volumes, resolved to absorb its contents as a counter-irritant to the love-laden pabulum I had been indulging in. The first article that attracted my attention was one detailing the history of the trotting-horse in America, which was written in so entertaining a style by a writer apparently well versed in his subject that I read it a second time. I read several others of the once-despised volumes during the days that followed, and found that they contained much information that was valuable to one interested in scientific farming.

An article in one of the reports on mushrooms—something I was always interested in—so caught my fancy that I resolved to procure the volume containing it, and a monograph on the same subject referred to in the article. When I returned home I met our congressman and asked him to have the publications sent to my address if he thought they were still in print. He informed me that it was not only possible to have that particular volume and pamphlet sent me, but also many of those which had been printed for years back, as well as many interesting and instructive reports and bulletins issued by various departments of the government. There are, he informed me, thousands of volumes of valuable documents which had been printed at great expense mildewing in the basements of the public buildings at Washington. The reason he assigned for this was that the people are under the impression that these publications are obtainable only through senators and representatives, who bestow them upon a favored few. While members of Congress always cheerfully order them sent to their constituents when requested, yet many of them can be secured just as readily by writing directly to the Secretary of Agriculture for those pertaining to his department, and to the heads of bureaus having charge of the publication and distribution of reports and documents of any other character.

Following the advice of the congressman, I wrote the Secretary of Agriculture, and after a few days volumes came dropping into the post-office to my address, and continued until I had a library that would be a "well-spring of pleasure" in some bookless farm home whose owner did not feel able to invest in books that would keep him informed of the progress that agriculture was making.

Determined that his sons of the soil should be provided with the best thought of the world in solving many problems of farming, Uncle Sam has employed an army of scientists and practical agriculturists to investigate and experiment and embody their researches in a series of helpful little books called "Farmers' Bulletins."

The corps of writers employed in this work comprise among their number leading botanists, statisticians, weather experts, veterinarians, naturalists, entomologists, and specialists in every branch of farming and stock-raising. The subjects cover all phases of rural and domestic economy. Among some of the treatises are those on "Potato Diseases," "Feeding Farm Animals," "Kafir-corn; Characteristics, Culture and Use," "Farm Drainage," "Facts About Milk," "Fish as Food," "Irrigation in Humid Climates," which will give some idea of the variety of subjects treated. The farmer's wife has not been neglected, as several of the little books are devoted to cooking, butter-making on the farm, poultry-raising and kindred themes.

Those who are interested in progressive farming should secure copies of such bulletins as are adapted to their particular locality, as they contain up-to-date information.

Many bookless homes that have a family of young people with hungry, inquiring minds would be made happy by the receipt of these magnificent gifts of a liberal government, and their perusal would give the vocation of farming additional interest.

The officials in charge of the publication and distribution of these books and bulletins are always pleased to receive requests for them, as the demand is an indication that their efforts to spread agricultural knowledge is known and appreciated. JAY-EM-SEE.

## MISCELLANEOUS ITEMS

Intelligence is the key to successful farming.

The best way to lift a mortgage is to raise larger crops on fewer acres.

Eight pounds of potash is an equivalent of about two bushels of hard-wood ashes.

Reports from Michigan indicate that Hill's Chili peach is even more hardy than the Crosby or Champion.

The greatest problem that now confronts the agriculturist is, "How can the fertility of our soils be maintained?"

The farmer who knows why, as well as how, to make every lick count is likely to be the most successful one.

It is a discouraging fact that the farmers are the hardest class of people in the world to organize for their own protection.

In order to place farming on the right basis the farmer should be able to give the reason for the methods he has adopted.

One of the most interesting and encouraging signs of the present period in the history of the grange is that it is able to call the highest talent to its aid.

The "Rice Association of America" was organized February 14th, at Lake Charles, Louisiana, with R. A. Knapp as president, and Oswald Wilson, of Houston, secretary.

Do not attempt to feed and rest the horse at noon with his harness on. You might just as well expect to enjoy your dinner by sitting down to eat it with overcoat, hat and gloves on.

Mr. W. M. Dove, of McComb County, Michigan, recommends as the most hardy and prolific apples for the southeastern section of the state the Ben Davis, Baldwin, Northern Spy and Steele's Green Winter.

The cultivation of sunflowers for seed is advocated by the chemist of the United States Department of Agriculture. The seed, it is stated, yields a superior quality of salad oil, the residue is a valuable cattle feed, and the stalks constitute an excellent material for kindling fires.

There is no better time than just now to shorten in the straggling branches of the young trees and cut out the superfluous ones, especially those that do, or are likely to, cross each other. My rule is to attend to this important matter about one week preceding the wheat harvest. Cut so as to expose as little of the surface as possible, and the wounds will heal over quickly.

The Pacific Coast Lima-bean crop will be harvested this year from thirty-five thousand acres in Ventura County, California. A recent dispatch from Los Angeles indicates that the contract price will be slightly advanced over last year's price; namely, $3.50 a cental. The comparatively dry seasons during the past three years have advanced prices to a profitable basis for the growers.

It is a somewhat singular coincidence that the most popular and most largely grown variety of winter wheat raised prior to 1880 (the "Fultz") was accidentally discovered in the summer of 1862, growing in a field of Lancaster red wheat, on the farm of Mr. Abraham Fultz, of Mifflin County, Pennsylvania, and that the law enacted by Congress creating the Department of Agriculture went into effect May 15th of the same year.

Mr. Jared G. Smith, who was in charge of the Seed and Plant Introduction Section in the Department of Agriculture, has been appointed by Secretary Wilson as director of the newly established experiment station at Honolulu. No better appointment could have been made. Mr. Smith is thoroughly well qualified for the work, and the producing classes of Hawaii are to be congratulated on the fact that so genial and practical a scientist has been assigned to duty in that interesting locality.

Wherever the Southern long-leaf pine is found the soil will be found to be deficient in lime. Success in cropping is best secured by the use of fertilizers that contain a large percentage of lime. A trial of the Thomas phosphate, which is also known as basic slag, is recommended. It should be applied almost exclusively on wheat, meadow, pasture and orchard lands. Apply one third of a ton every third year (in the fall), as this length of time is required to render the phosphoric acid available.

Some, at least, of the new ways are not so good as the old ones. Wheat that is thrashed from the shock, and taken directly to the mill and stored in bulk, is by no means worth as much for flour-making purposes as that which has been well stacked or mowed away and has undergone what is known as the "sweating" process previous to being thrashed. United action on the part of millers, coupled with a very slight increase in the amount paid a bushel, would be of advantage to both farmers and millers.

Within the last score of years there has been a remarkable development in the way of rural co-operation in Europe, and the result has been a great improvement in the condition of all rural industries. In France, where before co-operation became so general the farmer had great difficulty in "making ends meet," and did it only by the exercise of great self-denial, he is now, however, in a fairly good position. Under co-operation everything that the farmer has to buy is secured at a much lower rate than that to be obtained in the open market, and he secures the full value of everything he has to sell. Here in America we have the grange organization, in which they can, if they will but join it, reap all the advantages referred to. W. M. K.

## WHEN TO CUT ALFALFA

Alfalfa should be cut when not more than one tenth of the plants have come in bloom. Cut at this early stage the yield of hay for the season will be much greater than if the alfalfa is cut near maturity, and every pound of hay secured will be worth more for feed.

At the Kansas Experiment Station a strip through a field of alfalfa was cut when one tenth was in bloom; another strip was cut after full bloom had passed. The strip cut early was nearly ready to cut the second time when that cut after full bloom was being harvested the first time. The strip cut early grew vigorously through the season and made three cuttings and a good aftermath. The strip cut after full bloom gave a low yield the first cutting and did not grow sufficiently to yield a good second cutting. Early cuttings seem to invigorate the plant.

The late cutting of the first crop seems to injure the plant more than at any other time, and we have found it profitable to cut alfalfa the first time as soon as one tenth was in bloom, even though the weather was bad and we knew that the crop would spoil in curing. The increased yield from succeeding cuttings over that cut late much more than makes up for the loss of the first crop.

Successful clover-growers the first time they try alfalfa often ruin the stand so that it has to be plowed up, by waiting to cut until it reaches the stage at which clover is usually cut.

The great value of alfalfa is the large amount of protein it contains—that material in feed that is absolutely necessary for the formation of blood, lean meat and milk. The higher the protein in alfalfa the more valuable the crop. The chemical department of this station found the effect of cutting alfalfa at different stages as follows:

| | PROTEIN |
|---|---|
| One tenth in bloom | 18.5 per cent |
| One half in bloom | 17.2 " " |
| In full bloom | 14.4 " " |

The Colorado Experiment Station found the effect of cutting alfalfa as follows:

| | PROTEIN |
|---|---|
| Coming in bloom | 18.5 per cent |
| Half in bloom | 14.6 " " |
| In full bloom | 12.9 " " |

The Utah Experiment Station for five years cut alfalfa at different stages of maturity and fed the crop in producing beef. The average production a year an acre was as follows:

| | HAY, TONS | BEEF, POUNDS |
|---|---|---|
| In first bloom | 5.35 | 706 |
| In full bloom | 4.90 | 562 |
| Half blooms fallen | 4.55 | 490 |

These experiments made in three states—Kansas, Colorado and Utah—prove that alfalfa cut in the first bloom will give the greatest yield and feeding value. The leaves of alfalfa contain more than three times as much protein as the stems, a ton of alfalfa-leaves containing as much protein as twenty-eight hundred pounds of bran. Every care should be taken in curing alfalfa to save the leaves.—H. M. Cottrell, in Bulletin Kansas Experiment Station.

## EMBALMED MILK

Nine milkmen of Flint, Michigan, pleaded guilty to the charge of using formaldehyde and boracic acid in their milk. Their business has suffered greatly in consequence of the exposure. Yet not one of those milkmen thought it worth while to make any effort to post themselves as to the important features of their business. Had they been willing to be intelligent, had they seen that it pays to use brains at every point in dairy questions, they would have been saved this mortification and loss. And so it goes on the dairy-farm and in the factory.

The one thing men need most—intelligence—they seem the most unwilling to seek until it comes in the way of punishment and loss.—Hoard's Dairyman.

## USE FOR OLD FILES

Grind your worn-out files to various useful shapes on the end, and use for chisels, etc. Grind the three-cornered files to drill-points, and the corners sharp; break off the handle-end, insert the file in boring-brace and use it for drilling and reaming out holes in metal. Nothing better. Keep the point oiled while using.—Practical Farmer.

## CORRESPONDENCE

FROM TEXAS—THE BEAUMONT OIL STRIKE.—We are in the midst of a big oil excitement. The fever is somewhat abating, but still high. Beaumont is situated in the southeast portion of Texas, on the Southern Pacific Railroad, about eighty miles east of Houston and eighteen miles from the Gulf of Mexico. Beaumont is a small town, and known, previous to the oil strike, only for its lumber and rice and cane farms. The first well at Beaumont was dug by A. F. Lucas, representing Guffey & Galey, of Pennsylvania. Oil was struck on January 10th, and the well gushed with such force that several days elapsed before a valve could be placed and the flow checked. The flow at first was estimated at from fifteen thousand to thirty thousand barrels a day. Actual measurement since has shown that the flow is seventy thousand barrels a day. The product of this field is a heavy oil, suitable for fuel. It is not illuminating-oil like that of Pennsylvania, West Virginia and Ohio, but is very similar to California and Russian oil. It is found in the same stratum as the Russian oil, which is not the case with the illuminating-oil. It could not have a better location for a fuel product. The Gulf region has no coal, and its proximity to tide-water gives it cheap transportation and makes it easily available to a broad field. The value of the Lucas well can hardly be estimated. No one can limit the field yet, nor the continued output. Estimating the oil at fifty cents a barrel, which is below the value of California and Russian oil, or crude oil in general, this single well would produce, approximately, one million dollars' worth of oil in one month. One ton of coal is equivalent to four barrels of crude oil. Rating oil at fifty cents a barrel, this would make coal two dollars a ton, which is below the average wholesale price. Seventy thousand barrels of oil, equivalent to seventeen and one half thousand tons of coal, poured forth from the bowels of the earth in twenty-four hours without the effort of man. Something wonderful! With the exception of the Russian oil-field on the Caspian Sea there is nothing to compare with these wonderful gushers at Beaumont. Values of land around Beaumont have rapidly gone up since January 10th from ten to twenty-five dollars an acre to that of many hundreds, and in many instances to that of many thousands, of dollars an acre. One gusher after another has been added. Land in the immediate vicinity of the gushers, on Spindletop Heights, cannot be bought at any price. One gusher has sold for $1,250,000. It does not take more than $10,000 to develop a well. Many stock companies have been organized, some of them good and some of them frauds. The influx into Beaumont has been something enormous. Speculation has run rife and the people have gone wild. The stock and land exchange has been for the most part one big gambling scheme. Thousands have been made and thousands lost. Small investments in stock companies will in most cases be a total loss, and this means thousands to people who could ill afford it. Texas has been unusually prosperous for the last year. The cotton yield was almost double the average, and prices were almost double. This surplus has gone freely into the oil speculation. Many investments have bad wonderful returns. Some few are to-day millionaires who were poor men a few months ago, and the majority of them made their money by honest investment. Others have gained by questionable means. The excitement has abated considerably, and things are assuming a normal condition. What the outcome of the Beaumont oil-field will be is yet to be seen. There are, beyond question, millions in it, and it will furnish a much-needed cheap fuel, and prove a blessing to Texas and the South. J. C. B.

Smithville, Texas.

# Notes From Garden and Field

CONDUCTED BY T. GREINER

CORN AND BUCKWHEAT.—The excessive and long-continued rainfall during April and May and up into June, which has prevented me from planting corn at the usual season, and has left much of the area intended for corn far too wet, even at this time (June 7th), bids fair to result in a great reduction of the area that will be devoted to that crop this year. I have just managed to plant my corn—a few acres less than I really intended to plant—and, like most other farmers around here, I shall make up for the deficiency by sowing buckwheat on the plots left over. Buckwheat-fields, in short, will be rather thick around here. I am glad of this on account of the bees. Last year I had a good honey yield. Apple-blossoms, white clover, Alsike, etc., seemed to yield a good honey-flow. This year I have had no apple-bloom to speak of, and no weather for bees to be out while the little bloom lasted that I did have, and no white-clover bloom thus far, and the outlook for honey is not especially flattering unless there is a decided change. Possibly white clover may yet bloom, and probably Alsike will give its usual bloom, even if a little late. But with plenty of buckwheat close by there seems to be at least a chance for the busy insects to gather some dark honey, which is better than none. Buckwheat is a good-enough crop in other respects, and it will come handy. It makes good pancakes, and it makes good feed. So here is to the buckwheat! A good piece of my land, however, will be saved for late sweet-corn. It will probably be after the middle of June before I can think of planting that. A portion of it will be used for the Black Mexican, my old favorite and one of the best in quality if used before it begins to color. It is quite early, and will have plenty of time to get ripe. I believe, however, that this excellent corn has deteriorated in quality during the past twenty years, or possibly the difference in quality is due to difference in soil. The best and sweetest corn I ever had was grown on light, sandy soil. Possibly our heavier loams are not the ones to bring out the best qualities in sweet-corn. To provide for good sweet-corn late in the season (if it should be a favorable corn season) I have selected Ne Plus Ultra, or Country Gentleman (shoe-peg), for the other sort yet to be planted. This variety is remarkably sweet and tender, I believe the best in quality of any late sweet-corn that I am acquainted with. Frequently the latest sweet-corn in a good season is the most profitable and brings the best price.

SUNFLOWERS AND LIMA BEANS.—I wonder whether any of my friends have ever tried the plan of growing sunflowers as support for pole-beans. I am making the experiment this year. It seems that if I have one sunflower-stalk to the hill, and the hills three or four feet apart in the rows, and then plant two or three Lima beans around each sunflower-hill, it would be a happy combination. The only question with me is whether to leave the heads on the sunflower-stalks or to remove them before they make much growth. If the head were removed the stalk would surely grow all the more erect and strong, and serve the purposes of a bean-pole admirably.

THE ENGLISH SPARROW.—M. H. C. asks me to tell him how to destroy the English sparrow. These birds have filled his buildings with lice, and are a great nuisance. Yes, indeed; sparrows when they have a chance to nest under the eaves, or in cornices and crevices of outbuildings, in pigeon-lofts, etc., can become a very great nuisance. The United States Department of Agriculture some years ago published a book on the English sparrow and on the best ways to get rid of it, but I am not informed whether this book is still in print. Our friend might write to the Department and find out. I am not a believer in the use of poisons for sparrows or any other bird or four-footed animal, although we soil-tillers are rather ready with poisonous mixtures when we are fighting insect enemies. Traps are easily constructed, and sometimes the birds when congregating in flocks around outbuildings may be induced to enter lofts, sheep-sheds, etc., at wholesale, and caught by closing the entrances. Close all openings except some provided with trap-doors. Get the birds to come inside to feed, for instance, with pigeons. Then when you have a flock inside let down the trap-doors and you have them. Use your own ingenuity in constructing traps. In my latest book, "The Garden Book," you will find the following about the English sparrow:

"Only those people who are not fully acquainted with this bird (I have watched it with a good deal of interest for the past fifty years) or who have their vision dimmed by prejudice, can deny that it does render us good service at times. If it gets into mischief, and I know it can also do a heap of damage in wheat-fields at harvest-time, let it be dealt with as the case seems to demand. Bird-life is held more sacred and better protected by law in the land of my birth than it is here, but no restrictions were placed on us boys when we wanted to shoot, trap, snare, kill and eat the sparrow. We got a good deal of fun out of it, too. Our favorite way of catching these birds, in sufficient numbers, too, to get a full mess (and I used to do my own cooking in such cases), was by means of ripe wheat-stalks, with the heads left on, and smeared their whole length up to the head with bird-lime. When we saw the sparrows congregate about a pile of fresh horse-droppings in the street we simply placed half a dozen of the prepared straws on the heap, heads together in the center and butt-ends radiating outward. The birds would come back, try to pick the grain out of the heads, and get tangled up and wound up in the straw as soon as a loose feather touched the bird-lime. Usually they would fall right on their backs and yell, unable to make a move, and all you had to do was to go and pick them up."

A MELON ENEMY.—R. K. L., a reader in Meridian, Miss., asks me whether there is any way to protect his melons from the depredations of a bug or worm which bores into the heart of the melon from the under side. Possibly some of our readers may have had experience enough with this insect foe to give some good advice. My advice would be to try to gather up a few specimens of the bug or worm, put them into a little box, and send them to the Department at Washington (Division of Entomology) or to the experiment station of his own state for identification and advice. The Department and the station, either or both, will do all in their power to help the inquirer.

TOMATO DISEASE.—G. S. B., a reader in Newman (state not named), asks what he should do for his tomatoes. Last year he lost all of them. They began to wilt, look sickly and turn yellow, and finally die. They linger along only about a week. Probably this is the bacterial disease which sometimes attacks potato-plants, egg-plants, tomatoes, vines, etc., and which is sure death to the affected plant. I do not know that a remedy has even been suggested. The only thing to do is to prevent attacks by planting such crops on new land. Possibly the disease may be one of the blights to which tomatoes are subject. Then spraying with Bordeaux mixture would undoubtedly have a tendency to check the spread of the disease.

MILDEW ON PEAS.—A Michigan reader complains that his Champion of England peas mildew badly every year, while other varieties are all right. The Champion of England is an extremely rank grower and often reaches a height of four to five feet. You must give them plenty of room. If planted in rows three feet apart, and supported by brush or in other ways, so that the air can circulate around them, they will not be likely to mildew unless planted late, so that their cropping season would happen to fall in hot and damp weather. In short, more room and more air is the remedy for the mildew trouble in this case.

WEEVIL-INFESTED PEAS AND BEANS.—A Kentucky reader asks the old question how to keep weevils out of seed beans and peas. The answer is, By exposing the peas or beans, soon after they have been harvested, to the fumes of bisulphid of carbon in a tightly closed vessel. I thought everybody would know that by this time. A cup or saucer filled with this inflammable liquid is placed upon the peas or beans in a box or barrel and the cover put on. The fumes are heavier than the air and will sink clear to the bottom of the receptacle and kill every weevil inside. We should be careful to avoid planting peas or beans with live weevils, as these are sure to breed and make the next crop buggy.

# Orchard and Small Fruits

CONDUCTED BY SAMUEL B. GREEN

## INQUIRIES ANSWERED

**Gooseberry-bushes Not Bearing.**—F. A. A., Standish, Mo. I cannot tell you why it is that your gooseberry-plants do not bear. If they are well located, and have had good care during this time, I think I should throw them away and plant anew. If, however, they are shaded, or have been eaten by worms, it may be that all they need is a little more attention.

**San Jose and Oyster-shell Scale.**—G. E., Center Moriches, N. Y. The specimen branches of apple and pear trees which you send are badly infested with San Jose scale. No. 1 has some oyster-shell scale as well. This insect calls for the severest measures for its suppression, and I would suggest that you communicate with your experiment station at Geneva in regard to it.

**Currant Saw-fly.**—J. H., Little Falls, Minn. Your currant-bushes are probably infested with what is known as the currant saw-fly. The best remedy is Paris green used in the same way that it should be for the potato-bug. In using it at such strength as is common you need have no fear of poisoning the fruit, provided it is used at least a week before the fruit ripens. Powdered white hellebore may also be used for the same purpose. It is customary to mix it with about three times its bulk of flour. It should be applied early in the morning, as the foliage is then wet, and it sticks better than when it is dry.

**Grafting Pears on Plum Stock—Best Early Pears.**—L. P. W. It is an error to suppose that pears can be grafted upon plums or cherries. They are very different, and it is practically impossible to graft them. Most of the stone fruits will graft together, and pears, apples, wild thorn and service-berry may be grafted together, but many trees that will graft together will not make a permanent and satisfactory union. Among the best pears for early use are Tyson, Bartlett and Clapp's Favorite; for autumn, Angouleme, Louise Bonne, Anjou, Flemish Beauty and Seckel; of winter pears, Clairgeau, Winter Nelis and Keiffer.

**Blackberries—Orange-rust.**—M. G., Lawrence, Kan. I cannot tell you the varieties of the blackberries from the very meager specimens you send. One leaf is badly affected with what is known as the orange-rust of the blackberry, in which the under side of the leaf becomes a bright scarlet color, and the other is, I think, from a plant that is infected with it in its early stages. As yet, however, it does not show the very characteristic marks of the rust. This rust seems to be quite abundant this year. The best, and in fact the only, treatment for it is to pull up and destroy the infected plants. Where a whole plantation is badly affected the proper treatment is to plow it up and start anew.

**Red-rust of the Blackberry.**—E. L. S., Yates Center, Kan. The leaves from your blackberry-patch show that your plants are infested with what is known as the red-rust of the blackberry. This is caused by a fungous disease, and is quite common in some sections especially on some varieties. The old Kittatinny, for instance, was quite liable to this trouble, and has been practically destroyed by it in many sections. The best remedy is pulling and destroying the plants wherever they are seen, and if this is persistently followed upon the first appearance of the disease it is seldom that it will make any great headway. You can generally tell the infected plants before the red-rust stage appears, as they have a kind of weak appearance.

**Staminate Grape.**—J. B., Mattese, Mo. The grape-blooms which you send seem to have plenty of stamens, but few, if any, pistils, but they were in such bad shape when received that I could not make a very satisfactory examination. They look to me, however, as if they were the flowers from the staminate variety of our wild grape. This form never produces any fruit, although it is very vigorous in growth and produces an immense number of fragrant, rather conspicuous flowers. Of course, in such case there would be no chance of making it produce fruit except by grafting.——I do not know to what bug you refer in the case of your strawberries, and would like to have you send specimens of it. Pack them in a small paper box, wrap perfectly tight, and send by mail.

**Peach-aphis.**—S. R. D., Francisco, Ind. The peach leaves and twigs sent on are infested with what is known as the peach-aphis, or peach-louse. The most satisfactory remedy for it is spraying with tobacco-water. For this purpose use tobacco-stems and hot water, and make the material about the color of strong tea. For best results this material should be applied before the insects become so numerous as to curl up the foliage, as after this stage is past they are so protected by the curled leaves that it is difficult to get at them. I have failed to have good success from kerosene emulsion with this louse. An experience of my own may be of assistance to you. Five years ago I had my plum-trees very badly infested with lice, and kerosene emulsion and tobacco-water failed to give satisfactory results. I then made several tents of heavy cotton. These tents would just cover one tree by crowding the branches. After putting a tent over the tree I filled it with tobacco-smoke, made by burning damp tobacco-stems in an iron vessel, and made the smoke so dense that one could hardly see one's hands before one's face when inside the tent. As soon as the tent was well filled with smoke the fumigator was taken out and the smoke was allowed to remain in the tent for perhaps fifteen minutes. By this treatment I successfully removed every louse from my trees, and since that time have had very little trouble from them on these trees, although this year they seemed to be somewhat infested again, but not so much so that I think it will be necessary to use tobacco-smoke. The best kind of a tent to use is what is known as a hoop-tent, the hoop being of a convenient size, up to say ten feet in diameter, and made of one-half-inch gas-pipe fastened to the bottom of the tent. Such a tent is very easily put over the tree, and in my opinion is much the most desirable form to use.

**Flowers Without Petals—Coreless Apple.**—A. J. P., Wayneshoro, Va. I have noted with interest the flowers which you send, and find they are destitute of petals, which is the part termed in common parlance the bloom. It should be more generally understood that the white portions of the flower, known botanically by the name of petals, are not necessary for the formation of fruits. Their purpose seems to be to make the flower conspicuous, so as to attract insects which will aid in the pollenization. Some flowers seem to depend almost entirely upon their bright colors for the attraction of insects, while others with inconspicuous flowers, such as the mignonette and some other garden plants, have a fragrance which attracts the insects. Several years ago I was looking over the grounds of Luther Burbank, at Santa Rosa, Cal., and found there plum-trees without any petals, and even plum-trees the flowers of which never opened, but were fertilized in the bud. Such facts as these simply emphasize the point that nature is plastic and has a very strong tendency to produce variations. In most of the botanies this fact is not made of sufficient moment, but there is no other satisfactory way of accounting for the many diverse forms of cultivated plants.——By the absence of core in this fruit I take it that you mean almost the entire absence of seeds and hulls, but that probably there can be found the remnants of seeds. There are quite a number of plants which require to be cross-fertilized for the production of fruit and yet do not produce any seed. This is an interesting matter, and I am glad you have called our attention to it.

**Peach, Plum and Pear Queries.**—R. W. H., Robious, Va., writes: "1. What time of the year should peach and plums be budded? 2. Will our native wild plums make a good stock on which to bud? 3. Are plums budded after the same manner of peaches? 4. What method of grafting is best for pears? 5. Will seedling Seckel pears do for stocks for other sorts of pears? 6. What stock is generally used for pears? 7. What stock is generally used for peaches? 8. What is the proper spelling of Seckel?"

REPLY:—1. Peaches or plums should be budded during July or August, depending for time somewhat on the location. In the Northern states it is customary to bud the peach from the middle to the last of August, unless the season is very dry and it looks as though a growth would stop shortly, when it may be done earlier. Plums seldom grow as late in the season as peaches. This is especially true of the native kinds, and they should be budded in the Northern states by the middle of August, and often by the first of August. Plums and peaches may be budded in June, as soon as the buds are large enough to insert. If the growth is very rapid, however, it may be necessary to pinch the end of it, in order to get the buds of sufficient maturity for insertion. If budded in June it is customary to start them at once into growth. While this form of budding is quite practicable, yet little or nothing is gained by June budding over budding later in the season, except that it gives a longer time in which to do the work. 2. Our native wild plums make a very good stock on which to bud the plum, especially the native kinds. 3. Plums are budded in the same way as peaches. 4. The best method of grafting pears will depend on the size of the trees. I think there is very little choice in the methods of union used in grafting pears. For branches up to three fourths of an inch in diameter I generally prefer to use whip-grafting, and for the larger branches cleft-grafting. 5. Seckel pear seedlings should make very good stock for other pears, and if I had them I should be glad to use them. Thomas says of the Seckel, "Although of slow growth and small size, like the Green Gage among plums, it is regarded as the standard of excellence. . . . Shoots stout, short, ascending; tree very hardy." 6. Pears are generally grafted or budded on pear stocks grown in France, and I understand that these stocks are grown from the wild fruit, and that it somewhat resembles the common "Pucker" pear, which is so common in some of the old places throughout the Eastern states. On account of our very hot suns, pear stocks have not been successfully raised in this country in large quantities. The Japanese pear has, within a few years, attracted considerable attention as a pear stock, and seems to be well adapted to growing here, and it may be destined to become quite prominent for this purpose. In some parts of the Southern states the Keiffer pear is grown from cuttings for the same purpose. 7. The stocks preferably used for peaches by most nurserymen of this country are seedlings grown from seed of the wild peach, and these are gathered in abundance in the mountains of Tennessee and Kentucky, where the "yellows" is said to be quite unknown. 8. The proper way of spelling Seckel is as here used, although various other spellings are used. I say the proper way for the reason that this pear originated on the farm of Mr. Seckel, who lived about four miles from Philadelphia; and since he spelled his name that way, and the name of the pear comes from his name, I think this spelling should be followed.

# THE POULTRY-YARD

CONDUCTED BY
P.H.JACOBS : HAMMONTON,N.J.

## FAT FOWLS AND EGG PRODUCTION

BREEDING-STOCK and fat stock are intended for different purposes. The one should be fed for growth, either of itself or its young, while the other is simply a framework upon which the farmer may store meat for market. Yet it is rare on the majority of farms that any distinction is made between the two classes. The fact that at the fairs judges make their awards to the stock showing the best condition, as a rule, has encouraged the production of too much fat on breeding-stock. By the term "best condition" is meant those animals that are fat, as it is the accepted rule to consider a fat animal to be in the best condition. But the fat cow or hen is not always in the best condition. It may not be healthy and yet be fat. It may be lacking in vigor, endurance and capacity, and still be fat. The hen may not be fat, yet be healthy, strong, vigorous and active. Overfat hens are inferior layers. They sometimes fail to produce eggs that will hatch, while those that may be so fortunate as to do so only bring forth weak and inferior young. Diseases are more prevalent with overfat females than with those in moderate condition, and but little care is required with the young and active animals. It would be well if farmers could carefully realize the fact that the care required for the breeding-stock is different from that necessary for fat stock, to say nothing of the saving of time and feed by making the distinction.

## YARD ROOM

There is an unwillingness for some reason to give poultry sufficient space for foraging. Small flocks are usually well favored in that respect, as the hens utilize the orchard or stubble-fields, and consequently have an abundance of room, which results in securing more eggs, proportionately, from the small flocks than from the large numbers. There is no reason why large flocks should not pay as well if the hens are given the same conditions, but this cannot happen so long as the inclination is to keep the largest number of fowls possible on one acre of land. A small flock gives more profit because it receives more attention than can be bestowed on large numbers. If the farmer himself does not feed and care for the fowls they are looked after by some member of the family who takes an interest in them, the variety from the table, as well as ample room for foraging, enabling the hens not only to secure a variety of food, but also to keep in good condition. When large flocks can be similarly kept, having plenty of space and a variety of food, the profits should be equally satisfactory. On all large farms there are certain tracts of land that may be of no value other than for poultry. With suitable buildings, the flocks divided into small families, and some one to give the proper care, a profit might be secured from such locations.

## DUCKLINGS AND CHICKS IN MARKET

Ducklings weighing about four pounds each brought twenty cents a pound this year, and there is usually a good demand for them well into July, for which reason those who have them should sell them as soon as possible, as prices from now on will go down. Broilers that were choice sold for forty cents a pound during April and May in New York City, but many lots sold for less because they did not reach the markets in good condition. Appearance is a great inducement to buyers, and the prices depend largely on how the broilers and ducklings are dressed. Some persons take excellent care of their poultry, and make them fat and plump before selling, but neglect removing the pinfeathers, and do not pack for market in a manner to attract attention on the stalls.

## CHOLERA

Chicken-cholera can be introduced only by direct importation of the virus, either with fowls or by birds, rabbits or insects carrying it from the neighboring farms, according to government investigation of the disease. The virus is never carried through the air. When more than one fowl dies within a short period cholera should be suspected. Separate the fowls as much as possible, and give restricted quarters, where they may be observed and where disinfectants can be freely used. If the peculiar diarrhea sets in, kill the sick ones and change those remaining to fresh ground. The infected excrements should be carefully scraped up and burned, and the inclosure thoroughly disinfected with a one-half-per-cent solution of sulphuric acid or a one-per-cent solution of carbolic acid, which may be applied with a common watering-pot. Burn the dead birds. The germs of the disease are taken into the system only by the mouth, and therefore the watering-troughs and feeding-places must be kept perfectly sweet by frequent disinfection with one of the solutions named. Three weeks after the last case of sickness the fowls may again be placed together in a disinfected run. Keep them, however, under observation for two or three months before allowing them again to roam over the old places. Treatment of sick birds is almost useless. Cholera is a rare disease, indigestion being frequently mistaken for it.

## VARIED FOODS

A variety of food is absolutely necessary for the thrift, health and productiveness of all domestic poultry. Corn, oats, wheat and barley are the standard grains, and a good plan is to mix them and feed them all together. They can be fed at night, but the fowls should have a rather light meal for their breakfast. Wheat bran and corn-meal mixed make a good mess for breakfast, but it is very economical to give them potatoes, bits of cabbage, or anything else in this line, mixed in with the meal and bran and seasoned with a little pepper and salt. After the long night's fasting soft food in the morning satisfies their immediate wants in winter, as it is quickly digested. Fowls should also have a small quantity of fresh meat every few days, and especially if they are confined in small yards or runs. They should also have a bountiful supply of ground bones, oyster-shells and charcoal where they can get at it when needed. Regularity in feeding is essential. Fowls are creatures of habit, and when they become accustomed to regular feeding, and get it at certain times, they will then expect it and will go in search of other food if they have their liberty to do so. Never, under any circumstances, neglect to give plenty of fresh water so that it will be accessible to them at all times. In summer but very little food is required.

## THE POULTRY-HOUSE

The poultry-house should open to the southeast or east, as it is important that fowls should have the morning sun. The house, however, must be well floored, drained and ventilated, and be made thoroughly inaccessible to vermin, foxes, cats, etc. The excessive heat of summer must be as carefully excluded as the sharp frosts of winter. Each breed of birds should have separate houses to themselves. It is a bad plan to overcrowd. They should not be allowed to roost very high, neither should the perches be round, as is too often the case. Flat ones slightly rounded at the sides are best. Chicks should not roost with adults.

## KEEP ACCOUNTS

It is impossible to know whether you have made a profit unless accounts are kept. Charge the hens with all the food allowed, and also interest on capital invested. Credit them with all the sales and for the produce used in the family. The difference will be the profit, unless you wish to charge for your labor, the value of which depends upon how much it was worth to you at the time. A large flock costs less for labor, proportionately, than a smaller one, but in families where small flocks are kept for pleasure as well as profit the labor is not estimated.

## TONICS AND STIMULANTS

The practice of giving tonics that consist of iron solutions, copperas and such should be abolished, as they can do more harm than good. A healthy fowl requires nothing but good and wholesome food. If the fowls do not thrive, the best remedy is to reduce the food and give a variety. Tonics are good enough in their place when the fowls are not thrifty, but otherwise they will cause the very difficulties which are sought to be avoided.

## CHOICE POULTRY AND CONSUMERS

Properly fattened fowls are more economical, because the size of the bird is nothing as compared with the quantity of flesh. Some fowls will weigh heavier than others and yet carry much less meat, while a small, compact bird well fed or fattened is remarkable for the amount of flesh upon the carcass. It is impossible for a really good chicken to be produced at the price which prevails in many markets; and, therefore, if consumers would experiment for themselves as to the results of buying a plump specimen as compared with the ordinary chicken sold they would very speedily abandon the latter for the former. Upon the question of quality of the flesh much might be said, but it is enough to call attention to the fact that it is more economical to buy the better bird. Furthermore, farmers should raise only that which is choice, and they will then not only educate consumers to a knowledge of quality in poultry, but also benefit themselves, as they would thereby secure higher prices with but little increase in the actual cost.

## GUINEAS

Guineas are naturally wild, and are also careful to prevent the farmer from finding their nests, hence are not general favorites; yet they are busy insect-destroyers, can secure their food unaided, and may be induced to come up to the barn-yard every night. To begin right with them, put the eggs under a hen, and a week after so doing put a few hen's eggs in the nest, as the guinea-eggs require four weeks for incubation and the others three weeks. When the brood comes out the young chickens will obey the hen, and the young guineas will learn from them, growing to maturity with them, and making the poultry-house their resort at night. Guineas so raised will be tame and can be better managed. They may be hatched in June or as late as July.

## COLORS OF EGG-SHELLS

There is no uniformity in the colors of the eggs. The breeds that lay brown eggs do not produce them always of a dark color. Even two sisters will vary the color of their eggs. The tendency is to lay eggs that are white. It is an old expression that "all non-sitters lay white eggs." It is also claimed that the greater the tendency of the hen to sit, the darker the color of her eggs. When it is reported that a Leghorn produces eggs that have brown shells it may be claimed as a freak, or something unusual, though it is not an impossibility, and where such cases arise they are exceptions; but outside of the non-sitters the eggs from hens of nearly all breeds will vary greatly in color.

## SHELLS FOR GRIT

Oyster or clam shells are easily broken when heated in a stove. They do not answer as well when ground as when pounded, the rough, irregular pieces being preferred. The small shells on the sea-shore are now collected and sold for poultry, and as they need no preparation, being in excellent form for use, they are used by a large number of poultrymen. Where shells cannot be obtained, pounded bones, old mortar, burnt limestone, chalk or wall-plaster may be used.

## INQUIRIES ANSWERED

**Poultry Schools.**—A. F., Farmington, Pa., writes: "Is there not a poultry school in Rhode Island? If so, what are the terms?"

REPLY:—Address "Director Rhode Island Agricultural Experiment Station," Kingston, R. I., who will send circulars giving terms, etc.

**Millet-seed.**—B. R. G., Carlisle, Pa., writes: "Can millet-seed be added to the ration in as large quantities as with grain?"

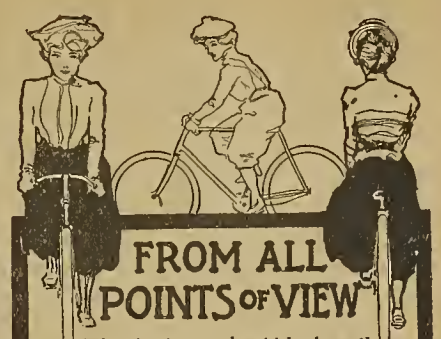
REPLY:—Such seeds are very nutritious, but also oily. A pint of millet-seed to twelve hens every other day will be of advantage, and if scattered over a wide surface will keep them busily at work.

**Early Pullets.**—J. M., Hudson, Ohio, writes: "How should the pullets hatched in April be fed so as to have them lay in November?"

REPLY:—Let them forage, feeding but little grain, allowing lean meat and cut bone at least once a day. It is not necessary to make them fat. Keep them growing. Also keep them free from the large lice on the bodies.

**Feather-pulling.**—A "Subscriber" writes: "My fowls pick feathers from each other until they are nearly bare. Is there a remedy, and what is the cause?"

REPLY:—It is due generally to idleness and lack of exercise, being an acquired vice, one hen usually beginning and teaching the others. The remedy is to kill every hen caught at it, or separate them until they forget it. Such hens are seldom of value after beginning the vice.

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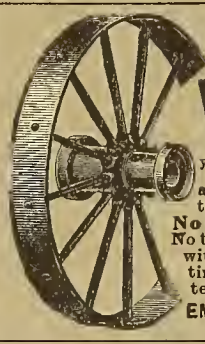

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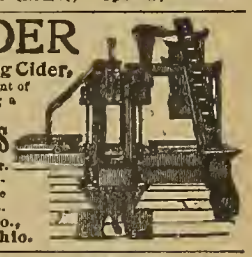

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# QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

**Brown Swiss Cattle.**—L. D., Canute, Kan. For addresses of breeders of Brown Swiss cattle write to N. S. Fish, Groton, Connecticut, secretary of the Brown Swiss Breeders' Association.

**Kalsomine.**—H. D., Chadwick, Ill. Kalsomine can be made as follows: Soak one half pound of glue over night, then dissolve it in boiling water and add ten pounds of Paris white. Dilute with water until the mixture is of the consistency of thick milk.

**Red Spider on Roses.**—B. McA., Haypoint, Minn., asks what to do for roses infested with little red spiders.

REPLY:—Expose the plants to the fumes of burning sulphur, or forcibly syringe them with a sulphur-wash made as follows: Mix one pound of soap with one half pound of flowers of sulphur in boiling water, and then add ten gallons of cold water.

**Sunflower-seed.**—J. S., Princeville, Ill., writes: "I raise good crops of sunflowers, but the seed molds and rots in the winter. How can the seed be cured?"

REPLY:—Your trouble probably came from storing the seeds in bulk before they were thoroughly dried. When the seeds mature, cut off the heads and hang them up in a dry place, or spread the seeds in a thin layer in a dry loft.

**Addresses of Swine-breeders.**—M. E. R., Miles, Wash. For addresses of breeders of Berkshires and Chester Whites write to Chas. F. Mills, secretary American Berkshire Association, Springfield, Ill.; E. K. Morris, secretary National Berkshire Record Association; Carl Friegau, Dayton, Ohio, secretary American Chester White Association; Herbert Jones, Himrod, N. Y., secretary International Ohio Improved Chester Record Association.

**Prickly Lettuce.**—W. G., Averyville, Ill. The weed you describe is not the Russian thistle, but the prickly lettuce. Once introduced it spreads quite rapidly, but does not prove to be such a formidable pest as feared. However, it should be eradicated. "Weeds and How to Kill Them" (United States Department of Agriculture) says: "Sheep, and sometimes cattle, will eat the young prickly lettuce, and in some localities their services have been found very effective in keeping it down, especially in recently cleared land where thorough cultivation is impossible. Repeatedly mowing the plants as they first begin to blossom will prevent seeding, and will eventually subdue them. Thorough cultivation with a hoed crop, by means of which the seed in the soil may be induced to germinate, will be found most effective. The first plowing should be shallow, so as not to bury the seeds too deep. Under no circumstances should the mature seed-bearing plants be plowed under, as that would only fill the soil with seeds buried at different depths, to be brought under conditions favorable for germination at intervals for several years. Mature plants should be mowed and burned before plowing. The seed appears as an impurity in clover, millet and the heavier grass-seeds, and the plant is doubtless most frequently introduced by this means. As the seed may be carried a long distance by the wind, the plants must be cleared out of fence-rows, waste land and roadsides."

# VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

**Warts.**—C. E. M., Hammond, La. Please consult FARM AND FIRESIDE of June 1st.

**Paraplegia.**—A. T., Milner, Mont. What you describe is a case of paraplegia, and must be considered as hopeless. The cause is not in the kidneys, but most likely in the spinal cord or its membranes.

**Cords (?) from the Spine to the Hoof.**—D. B., Newton, Wis. There are no cords extending from the spine to the hoof, consequently none can be relaxed. Give a better description of the ailment of your horse.

**Umbilical Hernia.**—H. S., Neosho, Mo. If the umbilical hernia (rupture at the navel) of your colt is of the size of "a man's double fist" I advise you to have it operated on by a competent veterinarian (not by a "hoss doctor"). The operation if properly performed is not at all dangerous, but is always effective.

**Wants a "Farrier" Book.**—C. E. B., Canal Winchester, Ohio. I cannot comply with your request.

**Grubs in the Heads of Sheep.**—H. G. F., LaMoure, S. D. The flies, Oestrus ovis, swarm and deposit their eggs from the middle of the month of July to the last of September; then the larvae, or grubs, gradually hatch and grow and get in their fatal work sooner or later, according to their time of invasion during the previous winter months.

**Want of Appetite.**—C. P. L., Bancroft, Mich. Want or loss of appetite is an attendant or symptom of a very large number of diseases, and therefore by itself alone is of no diagnostic value whatever. Correspondents who do not deem it necessary to observe the symptoms of their patients, and to give a fairly intelligent description of the same, must not feel disappointed if they do not get a satisfactory answer.

**Cow Milks Herself.**—M. L. L., Redlands, Cal. If your cow acts as her own milkmaid you can soon spoil her that fun if you prepare and put on her head a halter with a broad leather nose-band which contains two alternate rows of sharpened nails, those of the lower row pointing downward and those of the upper upward. That the nose-band must be in a position in which it will be the most effective will not need any explanation.

**So-called Sweeny.**—P. V., Albany, Ohio. Exempt your young horse from all kinds of work, allow him as much voluntary exercise as he is willing to take, and feed him liberally. Perhaps it will be best to turn him out into a good pasture. If this is complied with a perfect recovery will be effected in five to twelve months, according to the severity of the case. Medicine is useless in such a case, and external applications and operations, particularly blistering and roweling, are injurious.

**Cow Coughs.**—B. H., Perrysville, Ohio. Coughing is a symptom common to a large majority of respiratory disorders. Consequently, if the cough is not qualified, or its peculiarities are not described, and no other symptom is given, it only signifies that the animal, no matter whether it is a cow, a horse, a sheep, a hog or a dog, suffers from some respiratory disorder, but nothing further. Therefore, I cannot answer your question, and have to advise you to have your cow examined by a veterinarian.

**So-called Wolf's-teeth.**—H. G. F., LaMoure, S. D. The name of "wolf's-teeth" is commonly used to signify either small, supernumerary teeth, sometimes found in front of the anterior molars in the jaws of horses, or to remaining unabsorbed remnants of the anterior first, or milk, molars of horses, which also may for a few years remain rooted in the gums in front of the anterior permanent molars, but sooner or later will drop out, and therefore are seldom found in aged horses, but are frequently met with in horses from three to six years old. Both kinds are innocent, and have no connection whatever with the eyes.

**Hidebound.**—A. H. P., Baker City, Oreg. The condition usually called "hidebound" is not a disease, but only a symptom, or, if preferred, a result, of extreme poverty, no matter whether the latter is produced by want of food (starvation) or by any disease that saps the vitality of the animal or causes emaciation and decline. Particularly such chronic diseases or morbid processes as will either interfere with the process of digestion or assimilation, or will cause a constant drain upon the animal organism, so that the process of waste will be constantly greater than the process of repair, will sooner or later produce the condition denominated "bidebound." The remedy consists in a removal of the causes, and where this is impossible, or where the vitality is already too low, the animal is bound to die.

**So-called Scratches.**—C. H., Houston, Tex. What you describe appears to be a case of so-called scratches, a disease caused by too much exposure of the lower extremities of the horse to mud, water or manure, and by a neglect of properly cleaning the feet once a day, or whenever necessary. Unless already too inveterate, or of too long standing, the following treatment will soon effect a healing, provided the horse is kept on a clean, dry and level floor. It consists in making at least twice a day, to all the cracks and sores, liberal applications of a mixture composed of liquid subacetate of lead one part, and olive-oil three parts. That the horse should be exempted from any kind of work and be kept out of mud and water until a complete healing has been effected should not need to be mentioned. Old and very inveterate cases are more obstinate, and in them the treatment requires the constant attention of a veterinarian.

**Results of an Hypodermic Injection With an Infected Syringe.**—F. C. F., Woodland, Ind. The severe swelling on both sides of the neck of your horse, and the injury to the respiratory passage, probably consisting in a destruction or a paralytic condition of the recurrent nerve, and causing great difficulty of breathing, or roaring, according to your description, appear to be the result, perhaps not of the hypodermically injected medicine, but of using a filthy or infected syringe. If the latter, before using it, had been properly sterilized or been perfectly clean and aseptic no swelling whatever would have been produced, and no difficulty of breathing would have resulted. It may be possible to relieve the difficulty of breathing or the roaring by a successful surgical operation; but under the circumstances this must be regarded as exceedingly doubtful, and even if it is done the horse will be of very little value. So far as I can see there is no other remedy.

**So-called Screw-worms, or Maggots, in Wounds of Horses and Cattle.**—H. L., Dulzura, Cal. Peru balsam is probably yet the most effective agent ever used for the purpose of expelling maggots out of wounds. It also does not interfere with the process of healing, but rather promotes it. The only objection against it is its high price. Calomel is also very effective. It can conveniently be applied in the following way: First a sheet of stiff writing-paper is rolled into a conical or funnel-shaped tube. The narrow end of the paper funnel is put into the opening of the wound, while a small quantity of calomel is deposited in the wide end, and then with a determined blow driven into the wound. Still, as calomel is rather heavy, it requires a little practice to blow it just where it is wanted. Calomel should be used sparingly on cattle. It also promotes the healing process. Several years ago, and perhaps yet, the ranchmen in Texas used, apparently with good success, a salve the principal or effective ingredient of which consisted of a coal-oil derivative.

**Incipient Garget.**—A. L. C., Mercer, Pa. What you inquired about appears to have been a case of incipient garget when you wrote, but by the time this reaches you the case will be different, and the affected quarter will either be free again or perhaps be indurated and be lost to milk production. At the time of your writing a restoration to a normal condition would not have been difficult if frequent and vigorous milking had been resorted to. If only a very small quantity of milk, not more than was contained in the teat, could be drawn from the affected quarter with one hand, the other hand also might have been employed in working the milk from the quarter into the teat, and thus the incipient clots that prevented the free passage of the milk into the teat might have been broken up and been removed by milking them out. If this had been done nothing further would have been necessary. I have, and can have, no idea in what condition the affected quarter may be in when this reaches you, and therefore cannot prescribe what to do. If the same is dry, so that no milk can be drawn, it will probably be best to leave it alone. See numerous articles on garget in recent numbers.

**Judging the Age of a Mule.**—J. H., Port Crescent, Wash. The age of a mule, the same as that of a horse, is indicated by the changes presented by the teeth, but particularly by those presented by the incisors of the lower and also of the upper jaw. So, for instance, if the incisors are of normal length the characteristics of the friction surfaces correspond in horses and mules of the same age. If the incisors are too short, the correct age of either animal will be found if one year is subtracted from the age indicated by the friction surface of the tooth for every one twelfth of an inch that tooth is too short; and vice versa, one year must be added to the indicated age for every one twelfth of an inch the tooth examined is too long. Hence, a horse or mule sixteen years old will show friction surfaces indicating only twelve years if the incisors are one third of an inch too long; and the incisors of a twelve-year-old horse or mule will present friction surfaces indicating fifteen years if the same are one fourth of an inch too short. In some, especially old horses and mules, it may happen that the wearing off of the incisors has been irregular, so that the incisors of one side of the mouth are too long and on the other too short. In such a case the age indicated by every incisor has to be ascertained and then an average be struck.

**Interfering—May be an Actinomycoma.**—E. J. N., Panaca, Nev. You ask how an interfering horse should be shod. This depends how, where and wherewith he interferes, consequently an answer that applies to all cases cannot be given, except, perhaps, in a long treatise in which all possibilities can be dwelt upon. Hence, I will give only a few general rules. First, the foot interfered with should be shod in such a way as will, if possible, bring the part that is struck or interfered with out of the reach of the striking or interfering part; therefore, it is advisable to either lower the outside part of the hoof of the foot that is struck or to raise the median part of that hoof. Secondly, as the interfering foot does not strike when on the ground, but only when raised or in the air, it can do no good to change by shoeing the position of that foot when on the ground. It might be different if the moving of the foot could be changed—that is, the direction in which the foot is raised; but as this cannot be done, all that is left to be done is to round or bevel that part of the shoe with which the interfering is done. As this is not so easily ascertained as one may think, it is a good plan to put some chalk or paint on the part that is struck, and then drive the horse until he interferes the first time. If then stopped at once the interfering or striking part will show a chalk or paint mark. Horses given to interfering at all will do it more frequently when they are tired. Consequently, such a horse should never be driven until he is tired or fagged out. This rule is very essential, because the more a horse has interfered the more he will interfere, and the oftener a part is struck the more it will swell, and the more it swells the more it will be within reach of the interfering foot. Consequently, all interfering appliances buckled around the leg to prevent (?) interfering are detrimental, and make it more frequent. It is also essential to keep an interfering horse in a good and vigorous condition, because most of them will not interfere until they are tired.——It is possible that the "hard lumps" on the jaw of your heifer are actinomycomata; but as you give no description, and have not even stated whether they have their source within the bone or outside of the same in the connective tissue, I cannot decide what they are, and cannot advise you. Study the description that you have cited.


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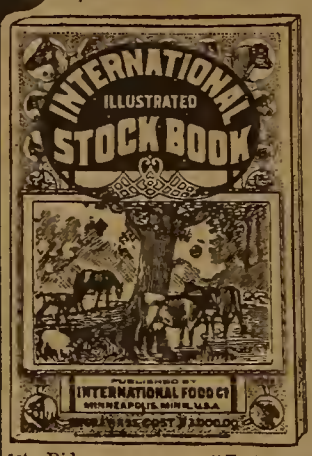


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## THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

### CURRENT COMMENT

**Lecturer's Topic** "What farm crops are best adapted to this locality? To what extent is it advisable for farmers to adopt specialties?" In view of the fact that a large per cent of our farms are becoming less productive, that many are annually abandoned because they will no longer yield support for a family, this question is one of great importance to farmers.

**Nature-study** Mrs. E. A. W., Montana, writes: "I am a new subscriber to the FARM AND FIRESIDE, and read with interest the comments on nature-studies for children. I would like some particulars of the aim and objects of the grange. I am in hearty sympathy with anything that brings children into closer contact with nature."

The "Declaration of Purposes" of the grange says:

"We shall endeavor to advance our cause by laboring to accomplish the following objects:

"To develop a better and higher manhood and womanhood among ourselves. To enhance the comforts and attractions of our homes and strengthen our attachment to our pursuits. To foster mutual understanding and co-operation. To maintain inviolate our laws, and to emulate each other in labor to hasten the good time coming. To reduce our expenses, both individual and corporate. To buy less and produce more in order to make our farms self-sustaining. To diversify our crops, and crop no more than we can cultivate. To condense the weight of our exports, selling less in the bushel and more on hoof and in fleece, less in lint and more in warp and woof. To systematize our work and calculate intelligently on probabilities. To discountenance the credit system, the mortgage system, the fashion system, and every other system tending to prodigality and bankruptcy.

"We propose meeting together, talking together, working together, buying together, selling together, and in general acting together for our mutual protection and advancement, as the occasion may require. We shall avoid litigation as much as possible by arbitration in the grange. We shall constantly strive to secure entire harmony, good-will, vital brotherhood among ourselves, and to make our order perpetual. We shall earnestly endeavor to suppress personal, local, sectional and national prejudices, all unhealthy rivalry, all selfish ambition. Faithful adherence to these principles will insure our mental, moral, social and material advancement.

"We shall advance the cause of education among ourselves and for our children by all just means within our power. We especially advocate for our agricultural and industrial colleges that practical agriculture, domestic science and all the arts which adorn the home be taught in their course of study."

The grange has for years advocated the introduction of nature-studies in the public schools. Just now educators are urging their adoption. Probably within the next five years nature-study will become one of the compulsory studies. So many inquiries of this nature reach us that we are preparing a list of books to suggest for study in the home. Unfortunately too many of our works on nature-study might just as well be called treatises on blacksmithing or navigation, so far as their worth to the seeker after reliable information is concerned. Others, while containing a few grains of truth, are so hidden by chaff that the busy reader has not time or inclination to winnow out the grain. All of John Burrough's works are reliable and most wonderfully fascinating.

### DR. JOHN TRIMBLE

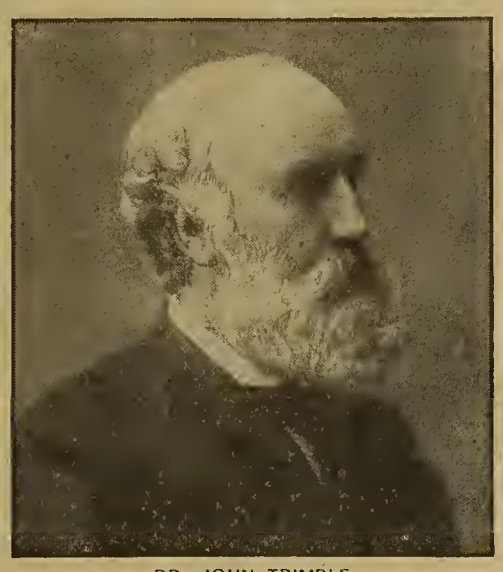
After the lapse of time which makes it possible for historians to justly and dispassionately estimate the principal forces that influenced the development of our nation, among the great movements for the betterment of humanity will be reckoned the grange. Around the leaders historical novelists will weave a halo of romance, and men will sigh just as we sigh to-day for those true old times

"When every morning brought a noble chance,
And every chance brought out a noble knight."

But these men who founded the order bewailed not the passing of glorious days, but saw in the to-day as "noble chance" as ever came, and only awaited the "noble knight" to defend it. Of that heroic and far-seeing band but two are left—Dr. John Trimble, the beloved secretary of the National Grange, and O. H. Kelley, the man in whose mind the grange had origin.

In the face of opposition and apathy and indifference these men plead with the farmers to organize themselves into a powerful body to protect their own interests, and with the law-makers to render to the tillers of the soil right and justice. What wonder is it that we of the present hold in loving reverence and veneration the two survivors of our order!

Dr. Trimble has been for many years the efficient and painstaking secretary of the National Grange. He has devoted the time and energy of many years to the cause of the farmers. Where sympathy and help were needed, he gave; when granges were weak and discouraged and ready to fall by the wayside, he infused new courage and enthusiasm; in the councils of the order his keen insight into human nature, his judgment and wisdom have proved valuable.



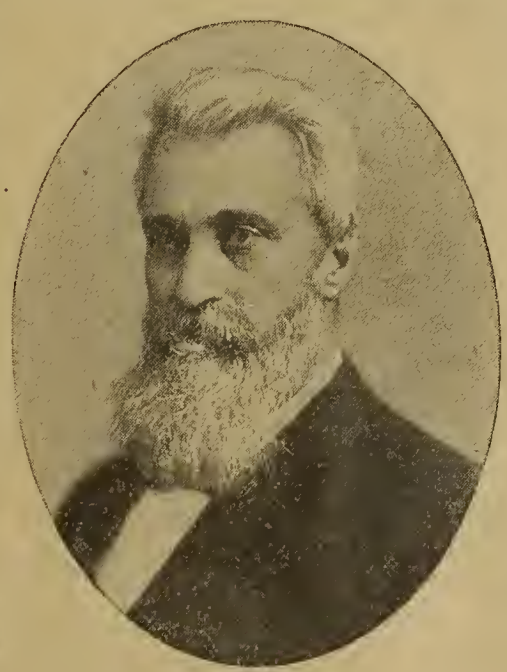
DR. JOHN TRIMBLE

The universal love and esteem in which Dr. Trimble is held by the order are their own eloquent testimony to the life of a man who saw his duty, and did it honestly, fearlessly, frankly.

### THE NATIONAL MASTER

Our readers who are acquainted with the splendid services the national master of the grange, Hon. Aaron Jones, is rendering the farmers will be glad to see his face.

Under the four years of able and zealous leadership of Mr. Jones the grange has made steady growth not only in numbers, but in availability for service for themselves. Each summer he devotes a large share of his time to visiting the various states; wherever he goes he arouses enthusiasm among the farmers, and creates respect for the ability of the farmers to maintain a helpful, aggressive organization. He is a forceful, vigorous speaker. Whether it be defending the farmers' interests before Congress, or addressing the farmers themselves on their rights and duties of citizenship, his arguments are forcible, his illustrations apt, and his words well chosen. The last address before the National Grange was a masterly statement of the organized farmers' position on various public questions. It will take rank with any state paper of the past year. We advise our readers to get it, read it, and heed its suggestions.



HON. AARON JONES

Mr. Jones will, as usual, devote most of the summer to public meetings in various states. We would urge farmers everywhere to be present at these meetings, and receive the hope, courage and inspiration that always come to those who hear him. Furthermore, we urge all who are zealous for the best welfare of our farming class and our country to rally round the leader and aid him in his fight for the farmers' cause.

### CARE OF BOOKS

(PAPER BY HENRY M. HUGGINS, READ IN HILLSBORO, OHIO, GRANGE)

We are to have a library for our grange. That means, among other things, that our library is to be kept somehow and in some place. That how and that place we may well, it seems to me, think about with care.

The ordinary proprieties of the use of books we do not individually own hardly need mention. Still we may recall a few of them as things always to be kept in mind. No such book is to be marked with pen or pencil. I like to mark my own books. I prefer a wide margin to the page in a book, so that when I am pleased or displeased, when I admire or blame as I read, I can express my thought at the time on the very page. But this should be done neatly if done at all. A book when thus annotated becomes a record, more or less, of the impress of the thought of the author upon the mind of the reader, and does not lose, but gains in interest for the same or another reader. But I have no more right to thus use a book that is not mine than I have to change the style of my friend's carriage, if he lends it to me, to make it conform to my notion of taste or comfort.

There are other proprieties of the use of books that owners of them, and certainly users who are not owners, should observe. Leaves should never be turned down to mark a place, or for any other reason. If you have a lively interest in a book you will hardly need to mark the place where you leave off. The subject-matter will guide you in an instant to the spot where you quit reading. But if you must mark your place, don't spoil the book by turning down a page or by a thick mark. Have thin slips of paper convenient, and use them. A good way is to cut out a number and have them in a small pasteboard box on your desk.

And this one thing please remember: Don't open the book at the same time holding the leaves tightly to the back. If you do, the chances are you will crack the glue, or sizing, at the back and badly injure the binding. Let the leaves yield from the back when opening the book.

I sometimes think that books have become so cheap and plentiful that people have grown careless in their use. If they were as dear and scarce as they used to be we would be more careful of them.

Of course, we must have some kind of a bookcase, and here a difficulty that used to confront book buyers and users has been happily overcome. As it used to be, when beginning a library the books had to lie around until a number had accumulated, or a bookcase entirely too large and expensive for present need had to be bought. When the first-bought case became full the same trouble occurred again as the library grew. Then if the books and cases were to be moved an ugly task was on hand. The cases were heavy, bulky and inconvenient to the last degree, even when the books were all out. Moving them with books in was out of the question. Books are heavy things. Some are heavy two ways. We must be careful of our selections or we will get some of the last-mentioned kind. This has all been changed by the invention and extensive manufacture of the sectional bookcase. Changed, I mean, so far as the lifting trouble goes. The other kind of heaviness we will, like the poor, always have with us, I fear.

If you have but a few books you can buy one section and its base. These will cost you about three or four dollars, according to the kind of wood and work you choose. You can get even cheaper, or you can get dearer if you like. The section will hold about thirty volumes, average size, and will be a very neat piece of furniture. Then as your library grows your bookcase can grow section by section. It can conform to almost any wall-space. It can grow high or wide, as you like. It will all the time be complete and pretty and in good taste. Then when you want to move it, one man or a stout boy is all the help you want. You move it section by section and never touch a book.

What amazes me is that only in the last years of the nineteenth century did this sectional-bookcase idea come into vogue. What disgusts me is that before it came I got a lot of old-fashioned bookcases, and cannot now afford to throw them away.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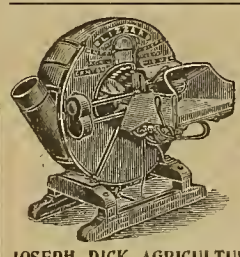

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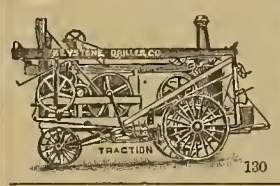

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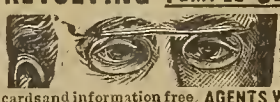

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# Our National Day of Independence

BY ADELE K. JOHNSON

The instinctive love of liberty dwells in the hearts of all men. An intense appreciation of this was the motive which influenced many stern business men and careworn women to attend the Fourth-of-July entertainment held at the Brown school-house. There was a rumor that particular attention would be devoted to Revolutionary times—how our blessed independence was won.

One of the old historians ably wrote of this exciting period in our country's history: "The people of the colonies though weak in military resources were strong in purpose, and relying upon the justice of their cause and the assistance of the Lord God Omnipotent, they resolved to defy the fleet and armies of Great Britain."

After the terrible, relentless, seven-year war the colonists were victorious, the right triumphed, and America once and forevermore was independent.

On this holiday strings of Japanese lanterns were stretched across the wide lawn in every direction. Several flag-lanterns were conspicuously displayed. Flags and gay bunting attractively decorated the interior of the pleasant little school-house. Flags were also festooned on the white muslin curtains. Scarlet and white geraniums nodded brightly from the windows.

The program was as follows:

Song—"Columbia, the Gem of the Ocean."
Chorus by the School—"Salute to the Flag."
Recitation—"Way Back in '76."
Recitation—"The Flower of Liberty."
Song—"God Bless Our Nation."
Recitation—"Patrick Henry's Speech."
Chorus—"God Bless Our Land."
Dialogue—"Columbia and Her Fallen Heroes."
Essay—"Historic Revolutionary Battles."
Trio—"Yankee Doodle."
Reading—"Declaration of Independence."
Duet—"Freedom."
Song—"It Takes a Man to be a Soldier."
Recitation—"Our Country."

The "Salute to the Flag" is a very graceful, reverent exercise.

"Way Back in '76" was realistic. "God Bless Our Nation" was earnestly sung by several small girls.

The eloquent speech containing that immortal utterance, "Give me liberty or give me death," which Patrick Henry so effectively delivered in the Virginia Assembly was ably declaimed, and justly received much applause.

The dialogue, "Columbia and Her Fallen Heroes," was both interesting and instructive.

The essay on "Historic Revolutionary Battles" was the most ambitious effort of the entertainment. It showed much research. The bloody struggles that were enacted at Bunker Hill, Quebec, Long Island, Princeton, Brandywine, Saratoga, Stony Point, Charleston and Yorktown were graphically depicted. And our heroes, who by their dauntless efforts so bravely won the "red badge of courage," immortal names for themselves and peace for their beloved land, all received their honored meed of praise. Three loyal cheers were given by their admirers and descendants.

Three men—school trustees—wearing the uniform of the Revolutionary period fervently played "Yankee Doodle" on drums and fife (after the familiar picture), to the unbounded delight of the children. The music and spirit were irresistible, and the entire audience joined heartily in singing the popular song.

A few paragraphs of the "Declaration of Independence" were impressively read by Mr. Morgan, president of the board of trustees. "We hold these truths to be self-evident: That all men were created equal; that they are endowed by their Creator with inherent and unalienable rights; that among these are life, liberty and the pursuit of happiness."

The poem "Our Country," by John G. Whittier, was eloquently recited.

Our thought of thee is glad with hope,
Dear country of our love and prayers;
Thy way is down no fatal slope,
But up to freer sun and airs.

The fathers sleep, but men remain
As true and wise and brave as they;
Why count the loss without the gain?
The best is that we have to-day.

O land of lands, to thee we give
Our love, our trust, our service free;
For thee thy sons shall nobly live,
And at thy need shall die for thee.

As patriotic citizens we all sang "America" with most grateful hearts.

In a clever little speech the school-teacher said that the student whose scholarship for the year was the highest was allowed the coveted privilege of representing "Liberty" in costume this evening. The second in rank was rewarded with a silver scarf-pin, flag design. "Miss Mary" also told the children that the red of the flag typifies the courage of the thirteen original states to fight the war to a triumphant close; the white signifies purity, while the blue represents faith and loyalty.

Under a smiling moon and many festive lanterns the "spread" was served, consisting of sandwiches, strawberry lemonade, national cake—a large loaf with red, white and blue decorations—liberty cakes—that is, small, individual cakes with a tiny flag floating aloft. The American ice-cream was red and white striped, harmoniously served on simple blue china.

A huge box of "flag bonbons," which one of the school-teacher's friends had sent out from the city, proved a decidedly successful novelty.

This patriotic entertainment brought the fathers and mothers closer in sympathy to the hearts of their children, and vividly showed to us all the noble characters of the brave defenders of this grand nation.

## WOMAN'S OPPORTUNITIES

In reviewing the success attained by our noble women as authors and philanthropists I hope we have not for one little moment lost sight of the importance and usefulness of our individual selves.

In drawing a comparison do not let our own life-work sink into insignificance. Each life has been created for a purpose, and it will be much to our advantage in rounding out a full and complete record to appreciate our abilities and make use of every opportunity to improve them.

We too often look upon the completed work of the author or the accomplished purpose of the philanthropist as having been attained with ease. We fail to see the difficulties they have overcome, and giving them credit of having been born with wonderful abilities, our own talents seem so small that we are tempted, like the one of old, to hide it away in the earth and leave it there unused, which, indeed, would be much the easiest thing to do; but so disappointing will be the rendering of such an account, let us bring forth the little that we possess, and with earnest endeavor give it every opportunity to develop.

We should not feel that because our duties are confined within four walls of home they are of little importance to the outside world. Ah, no! From within this sacred shrine, tended and cared for by a loving, patient mother, whose creative abilities have been taxed almost beyond endurance to provide food and clothing from a meager sum, has come our most useful men and women.

Who among us can fail to see the great importance to our nation of the life of Nancy Lincoln? Destitute of everything but a fair education, her home was a miserable cabin, not sufficient in wholeness to keep out the rain in summer or the bitter cold in winter. Her husband, of a roving disposition, left her often for days and weeks at a time alone, with her little ones to care for.

"From her door no human habitation could be seen; no familiar neighbor passed or repassed, for there were no roads, and night was made lonely and terrifying by the snarl of the wolf, the cry of the panther or the hoot of the owl. Yet here, while longing for friends, books and the comforts of life, she patiently cared for her children, preparing their meals of corn, bacon or game on the hearth, taking them upon her lap at dusk to tell them stories and sing them to sleep, then tucking them away in their bed of leaves covered with buffalo-robes, and teaching them as they grew older their A B C's, and how to read, write and spell."

From out this humble home came the strong, sturdy, honest boy; the scholar and debater; the patriot and philanthropist; the kind, unselfish, loving man who led our country successfully through the struggle that placed it among the greatest in the family of nations. Strong men, yes, armies of men, have felt the influence of that home, the mother's stories and the gentle, loving lullaby.

The home has been truly called the threshold of the nation, and the home-maker cannot prize too highly her beautiful mission, or watch too closely for the golden opportunities in which to improve herself.

The school-days do not end with the receiving of a diploma from some high school or college; we have only finished the preparatory necessary for the real-life school, and because we are permitted to be our own instructors we often grow indolent and careless, losing sight of the real purpose of life—to grow, to develop.

We recount with pride the educational advantages and the successful attainments of women to-day, as compared with a century ago. There is scarcely a trade or profession that women have not mastered. In literature, art and science she has proven man's equal. From the unappreciated life of oppression, servitude and drudgery of centuries ago she persistently pushed forward through the tangle brush of ignorance and superstition, until to-day she is represented in every vocation of life equal with man, and often his superior.

And what has brought about this great change? Man? No! He believed her incapable of accomplishing those things which required strength of mind. To woman alone belongs the credit.

She recognized within a desire, an intense longing, for knowledge, from which was born the appreciation of her own abilities to do. Recognition kindled the fire of courage and ambition, and fanning the flame with hope and determination she struggled on through the dark ages of servitude, gaining in knowledge and power until she was able to break the manacles of superstition and custom, and with equal advantage take her place by man in the school and college.

Unused as she was to this kind of work, by applying herself diligently, and wisely using the opportunities that chanced to open for her, she climbed to the pinnacle of success and fame.

Her achievements have not lessened her interests in the home. By her untfring efforts she has raised the standard of domestic labor until the adorning of our homes has become an art, the preparing of food a science, and the care of the infant, the lisping babe and confiding child a most sacred and worthy profession. But her work is not complete. The coming century will open to her still greater advantages for knowledge and improvement.

We are women of the twentieth century; our opportunities are many and varied; let us seek to know them, and may the motive that prompts us to action ever be for our own highest good and development.

ANNA BELLE.

## BABY'S BIB IN POINT-LACE BRAID

This is used as an ornamental bib, and is a very dressy article for a baby's outfit. The

stitches are simple and the bib is easily made. Use heavy handkerchief-linen for the center.

B. K.

## A FOURTH-OF-JULY GARDEN PARTY

A bright young girl residing in a small country town, where every season there are a number of summer boarders and city guests, invited those she knew to a Fourth-of-July garden party, and with the assistance of a few friends made it a most enjoyable affair for those who came.

The guests one and all declared the colonial mansion, with its roomy porches, spacious grounds and large shade-trees, an ideal place for an entertainment of this kind.

The big red, white and blue sun-umbrellas, with which the lawn was dotted, covered rustic chairs, benches and hammocks. Bunting was in evidence everywhere, while a band of musicians under one of the trees added much to the joyous occasion.

A number of games were played, the winner in each receiving a tiny flag, and the most be-flaged individual at the end of the afternoon was given a pretty silk flag.

When all the guests had arrived there was a bicycle parade, where twenty little lads and lassies took part and competed for a prize, to be given to the boy or girl who rode a wheel decorated the handsomest in colors appropriate to the occasion.

But the most amusing event of the afternoon was the "puppet show," a portion of the veranda being used for a stage. The comical puppets were made like rag dolls, and were attired as Uncle Sam, Miss Liberty and natives of our new possessions. The dolls were only two feet high, and were made to stand on a shelf fastened to a screen covered with red, white and blue cotton cloth, in which holes were cut big enough for a child's head to go through. The dolls' arms were left free, so as to move up and down by means of a black cord passed through the opening, and were managed by the child behind the screen, who constantly kept his little puppet in motion; and as his own head formed part of the body, the effect was extremely funny, and funnier still when all began to sing familiar melodies.

There was much merriment at supper-time, when the refreshments were served picnic-fashion. Baskets on small tables were arranged in such a way that only one course could be uncovered at a time, the men changing seats during every course.

RUTH VIRGINIA SACKETT.

## ROSES

The air is now laden with the exquisite perfume of roses, and to many of us it is a pleasure to be able to store away some of this deliciousness for our future delectation.

ROSE-TEA.—In the days of our grandmothers rose-tea was regarded as an excellent drink for fever-patients, and was made by picking the petals from one Damask rose or cabbage-rose (Rosa centifolio), and pouring over them one half pint of boiling water; then after steeping for a few minutes it was ready to be strained and used. It is beneficial when used either hot or cold. Dried roses can be used as well as fresh. Cold rose-tea is very refreshing when applied as a toilet-water, and if the tea is bottled while warm, and then kept in a dry, warm place, it will be found at the end of a year as nice as when first put up.

ROSE-SYRUP.—Put into a granite kettle one quart of clear water; when it begins to boil add one pound of petals of the cabbage-rose, then take from the fire, cover the kettle, and let stand over night. Strain through a fine cloth into a double boiler, and add four pounds of granulated sugar. After boiling until the sugar is dissolved stand it aside to cool, then bottle. One tablespoonful of rose-syrup added to a glassful of water makes a cooling, delicious drink. Rose-water and white cake are the usual refreshments offered to afternoon callers in certain sections of the South.

CANDIED ROSE-LEAVES.—Select the desired quantity of rose-leaves, and let them become somewhat dry, but not crisp, by being spread on an inverted sieve and standing in the air. Boil one half pound of granulated sugar with one half pint of water until it spins a thread; then with a fine wire dip each leaf into the hot syrup, and put it back on the inverted sieve, which should be slightly oiled. Let the leaves stand for several hours, then if they do not look preserved and clear they will require a second dipping before being dipped into the fondant. Melt one half cupful of fondant, add three drops of the essence of rose and two drops of cochineal, and enough water—one drop at a time—to give the fondant a thin, grayish color; then dip the rose-leaves one at a time into it, dust them with fine granulated sugar, and place on oiled paper to harden. To keep them for some time place them when hard between layers of paraffin-paper in a tin box. Have the layers thin.

ROSE-VINEGAR.—To the petals carefully picked from one dozen cabbage-roses and placed in a glass bottle add sixteen tablespoonfuls of distilled water or rain-water that has been boiled and two tablespoonfuls of glacial acetic acid or white, distilled vinegar. Put in the glass stopper, and without removing it agitate the contents of the bottle daily, when at the end of two weeks it will be ready to be strained into small bottles for use. A few drops are enough to use at a time, and when added to water to be used in rinsing off soap-suds it will be found a very agreeable toilet-vinegar.

TINCTURE OF ROSES.—Fill a bottle with the petals of the cabbage-rose (Rosa centifolio), then pour some good spirits of wine upon them, and close the bottle. Let stand until required for use for toilet purposes or for flavoring. It will keep for years, and yields a perfume little inferior to attar of roses; a few drops will impregnate the atmosphere of a room with a delightful odor.

VIRGINIA REED.

## NOT QUITE THE SAME

Not quite the same the springtime seems to me,
Since that sad season when in separate ways
Our paths diverged. There are no more such days
As dawned for us in that lost time when we
Dwelt in the realm of dreams, illusive dreams;
Spring may be just as fair now, but it seems
Not quite the same.

Not quite the same in life, since we two parted,
Knowing it best to go our ways alone.
Fair measures of success we both have known,
And pleasant hours, and yet something departed
Which gold, nor fame, nor anything we win
Can all replace. And either life has been
Not quite the same.

Love is not quite the same, although each heart
Has formed new ties that are both sweet and true;
But that wild rapture, which of old we knew,
Seems to have been a something set apart
With that lost dream. There is no passion now
Mixed with this later love, which seems, somehow,
Not quite the same.

Not quite the same am I. My inner being
Reasons and knows that all is for the best.
Yet vague regrets stir always in my breast,
As my soul's eyes turn sadly backward, seeing
The vanished self that ever more must be
This side of what we call eternity,
Not quite the same.

—Ella Wheeler Wilcox.

## CARE OF CLOTHING

A WELL-DRESSED woman is as surely the envy of her illy clad sister as is the fact that both exist abundantly and that both are daily met with. It is no true sign that a woman has an unlimited bank account or well-filled purse to draw upon because she appears always in attractive attire and looks dainty and pretty. Many a wife and maiden who has but little money to spend upon clothes is found always to look "queenly" and stylish when in street costume, and dainty and neat in home attire. And one who does not understand the art of good dressing and close and careful calculation imagines many things not quite true, and feels bitterly over the fate that seems to have deprived her of the feminine belongings that form so essential a part of a well-dressed woman's wardrobe.

But it is less a matter of money than of taste, ingenuity, calculation and care. A woman who spends her wardrobe-money without forethought and planning receives for it not a tithe of what she might possibly and probably. If she purchases with extravagant hand she suffers loss twofold. The becomingness of materials, as well as colors and styles, must be a study, and the serviceable or non-serviceable qualities of materials and articles need also to be taken into consideration.

All admire a well-dressed woman, women as well as men, unless it be that a spirit of jealousy poisons the mind of one woman because another looks so infinitely her superior in general attractiveness. One makes a study of dress, while the other gives the subject no thought. One cares for her clothes, while the other neglects them. One gives more of thought than of money to the completing of her wardrobe, while the other gives money and but little thought. To the one results are satisfying and pleasant, while to the other nothing suits and nothing is right.

A woman's gown cannot long be thrown about upon beds, lounges and chairs, and be left to lay in ungraceful folds, without giving strong evidence of such lack of care. If her hats are not dusted and put away after each wearing they soon take on an appearance of shabby gentility, for they lose their freshness and crisp attractiveness that they possessed when they left the milliner's hands. And of all dress abominations a shabby hat is about the worst. Good millinery is expensive, and requires careful handling if it is not to prove a quick disappointment. But in many lines good millinery pays well, as its usefulness lasts long and it is to the end presentable. Good plumes are classed here.

Boxes or trunks for hats, closets for clothing and hangers for gowns are necessities. As a skirt is hung or laid away so will it "hang" when donned again. If hung awry on nails it will hang awry when worn. Long boxes for dress-skirts are admirable. Many women have them made of nice woods, and the lids upholstered handsomely. They make pretty and twofold serviceable pieces of bedroom furniture, keep skirts free of dust and wrinkles, and serve as a seat, besides.

Jackets and waists should be kept in shape by putting away in closets on coat-hangers. These articles are not expensive, and should be had in numbers. A dozen of quarter-circles in wood hangers, with strong wire hooks, may usually be purchased for from thirty-five cents to fifty cents. Quarter-circles sawed from barrel-hoops and covered by winding with cloth are far better than none, and many use them entirely, having none of the "boughten" ones.

Shoes should be dusted after each wearing, and well aired. Soiled hosiery should never be worn with a good pair of slippers or shoes. In truth, soiled hosiery, like other articles of soiled clothing, is not commendable at any time. Very little, if any, of the preparations for making shoes look new should be used. It is quite impossible to find any that absolutely do not injure the leather. Careful rubbing and dusting will keep shoes pretty for quite a length of time.

When one's clothes have been well selected and well made, and are becoming and good, one loses that sensitiveness of self-thought that always harasses and hangs about the woman who feels that she is not looking well. To be unconscious of self renders a woman always more attractive to others. Her temper is not ruffled, and mortification is not playing its disagreeable part. To be well dressed is worth while and commendable as an ambition.

I have wished that the graceful, clinging and loose-flowing robes so much affected on the stage might become more and more a part of the home manner of dressing. Women admire so graceful an attire, and men call women thus garbed "ravishingly beautiful." Yet let a woman suggest that she would adopt those "ravishing gowns" for home wear and her lord is prone to remark that it would be the height of absurdity. Asked why, he can only reply, "Folks would talk, and would make remarks about it; it's so unusual, you know," etc. But such manner of dressing would soon have passed from the "unusual" stage of affairs to the usual and expected, and become common; but never so common that these pretty gowns would not be called pretty and be greatly admired.

Then, too, women would be more comfortable than they are in close-fitting waists, corsets, shirt-waists and other articles truly uncomfortable. I have always deplored the fact of woman's slavery to uncomfortable dress, and have always looked forward to a reign of flowing house-gowns simple, dainty and loose. Think of "ye lords," who contend for the straight, strict suits and close-fitting clothing for wives and sisters for street attire, and largely for home attire, as well, sitting, walking or working in "stays," tight bands and other foolish, unhygienic, uncomfortable and health-ruining clothing! No man on earth would so enslave himself. And I know of a few women here and there who as determinedly will not be enslaved. And they will wear, and do wear, just such dainty, flowing garbs as one finds upon the stage and pronounces "a dream of beauty."

When women have adopted these same "dreams of loveliness" and comfort there will be more of lovely dreams of other kinds, more pleasant days, more of good health and more of happiness in general. And they will be well-dressed women, dressed at less expense and with less of care and trouble than at the present time.

Pretty underwear is one of the delights of a woman's heart. Ready-made clothing for outside wear and under wear has come to be quite the rule. And this is saving a vast amount of work to women who have many and diverse home and household cares. It leaves her to but take care of the garments after purchased. Yet how much we see of shabby underwear and handsome outside gowns. The "stitch in time" has been neglected, and carelessness predominates.

No woman may feel herself well dressed unless well groomed in all respects—cleanliness, fresh clothing underneath, and well-cared-for gown, hat, gloves and shoes. Have garments plain, good and wholesome rather than shabby with shabby laces, embroideries and neglected stitches. Shoddy laces are not dainty, and neglected clothing is always unattractive and repulsing.

ELLA HOUGHTON.

## A HANDY DISH-RAG

People who wish to wash dishes in hot water and not scald their hands will find that an old half-worn paint-brush is the best "dish-rag" they ever used. It is as much superior to these nasty little mops as anything can be, needs never be dry, does not get foul, and will last for years. It should be a brush the butt of which is full of old dry paint. After using rinse, and throw the water out, and don't stand it up. It is the finest thing imaginable for washing milk-pans.

C. JAY A.

## PUTTING UP FRUIT

With June and July comes the fruit season, and to housekeepers that means much more extra work; but it also means the satisfaction of seeing the store-room shelves filled with jars that shall supply her family with delicacies during the long and cold winter.

The first thing to do in preparing for the fruit season is to see that the jars are clean and the covers and rubbers are in good order. If there is the least doubt about the latter it is best to buy new ones. Many housekeepers buy new covers and rubbers every year. I do not use a rubber the second time unless it is soft and in as perfect condition as when new. It does not pay to run any risk that may be avoided, of losing the fruit after it is canned. Unless you have washed the jars yourself when they were emptied last winter, a washing under your supervision had better be done now, for servants are often careless, and absolute cleanliness is necessary to the preservation of the fruit. If the jars are new, loose bits of glass are often sticking to the inside, and might cause serious consequences if not removed.

When ready to can fruit the jars, rubbers and covers should be kept in hot water and removed as wanted. Have a large cloth wrung from hot water, and put in the bottom of a pan to set the jars on while filling them with the boiling fruit. Do not use your dish-cloth or cup-towels to wipe the tops of the jars or to handle them if you do not want to stain them beyond redemption. It is better to have some cotton cloths for this purpose—old white cotton, calico or gingham are as good as anything you can use.

To can strawberries, pick them over the night before, put them in a large earthen bowl or jar, and to every quart of berries put one half pint of granulated sugar, sprinkling it between the layers. In the morning drain off all the juice into a saucepan, put it over the fire, and when it is beginning to boil skim it well, then put in enough berries to fill one jar two thirds full. Let them boil (covered) five minutes, then skim them out into the jar, screw the top on loosely, and let the jar stand in hot water until all your berries are cooked and in jars; then beginning with the first one, fill each one full with the boiling syrup, and as fast as filled put on the rubbers and screw the tops down as tightly as possible. Stand the jars bottom upward on a table, out of a draft of air, and when they are cold wrap each one in paper, put on the label and put them away. It is a good plan to put a silver knife in the jar while filling with any fruit, as that will lessen the danger of breaking. I always stand all jars bottom upward to cool, as I can then see at once if they are not perfectly sealed. I have made it a rule to seal all canned fruit, preserves, jams and sweet pickles in glass jars while hot; then there is almost no danger of anything spoiling. Jellies I put in glasses, let stand open in the sunshine, if possible, until cold, then wipe the tops with a little cloth dipped in alcohol and pour melted paraffin over the tops, enough to cool in a thin layer, turning the glasses so that the paraffin will harden against the sides of the glasses all around. I never yet have had a glass of jelly to mold when treated in this manner.

Currants and red raspberries being ripe at the same time make most delicious jelly or jam when used together—two thirds currants to one third raspberries. They are also good canned together in almost any proportion, the currants furnishing the acid and the raspberries the flavor. Whenever I have an excess of juice in canning fruit I strain it and seal it in bottles, sometimes mixing two or three kinds. It is nice for pudding-sauces, or with water makes a refreshing drink.

MAIDA McL.

## LIST FOR BOXES

Every housekeeper knows the annoyance of having her carefully packed chests and trunks disarranged by having to get an article that is needed out of season.

In this changeable climate it is hard to tell just when to pack one's winter things, and a most excellent plan, which saves much labor, is to wrap and mark each bundle separately, and as the box is packed write very plainly on your piece of paper the name and number of the article. Thus No. 1 is in the bottom, at the left; No. 2 beside it, and so on.

When complete, tack this list on the inside of the lid. This at first may seem like unnecessary labor, but when you cannot remember, try as you will, whether the children's underwear are in the trunk or chest, it will be a great convenience to raise the lid and ascertain at a glance.

ALICE WINWOOD ANTHONY.

## MILLINERY TOOLS AND TERMS

The tools necessary to a millinery student are scissors, needles, wire-nippers and a tape-measure. The scissors should be not less than five inches nor more than seven inches in length, and one blade should be quite pointed. The needles must be "straws" of various sizes, and the wire-nippers the same as those used by some mechanics, and which are frequently spoken of as bell-hangers' pliers. The points are used for bending the wires, while the sharp part immediately below is for cutting it. The tape should be one with the eighths of inches distinctly marked upon it, to facilitate correct measuring. In addition to these four tools, which are of pre-eminent importance, the student will at times need a small pocket-knife, a small flat-iron, a piece of chalk and a bonnet-duster. The last-mentioned article is a small whisk-broom made of hair or velvets, as millinery fabrics should never be brushed with the ordinary broom-corn whisk.

The most convenient way of working is to sit at a fairly low table, with a stool for the feet, so as to make a "lap." Now one of the first things to learn is to make a head-lining. This, as its name implies, is a lining for the head of either hat or bonnet. The width of this lining is decided by the depth of the crown plus two inches for turnings, part of which is utilized in the hem and the remainder in the crown of the hat; this may be cut on the bias or straight, and as there is more economy of material in the latter a great deal may be prepared and laid away for future use. Hem one side of this, leaving enough space for a bodkin to draw a piece of narrow tape or ribbon through, and when the hat has been trimmed it can be drawn partly together, making a neat little bow of the two ends of the tie-ribbon. When the lining lays back in the crown of the hat it should show only enough of the tip for the reading of the milliner's name, which is usually stamped in gold letters on the tip or top lining of the hat. Linings are always either black or white, and are of thin or China silk for expensive hats, and farmer's satin for the cheaper quality.

FRENCH TIPS.—There are a great number of hats on the general market that have on the tip the name and street number of some dealer in Paris. A great many people believe those to be imported hats; such is not the case, as they are only copies of a Paris style, the style only having come from across the sea.

You often hear the phrase, "A pattern-hat." This is one imported from a foreign land or brought from a large city or purchased from another dealer, in order to take pattern of the style in copying a number of the same kind for general trade.

MILLINERY PARLORS.—In a large city like Chicago a parlor trade is one that will prosper, no matter how times are in the business world. The parlor milliner pays no rent, has no stock on hand to dispose of, and knows how to please her customers. If Mrs. Jones brings a great lot of stuff from the bargain-counter the parlor milliner makes it into a hat without comment for the small price of one dollar. If Mrs. Brown gives her five dollars toward a spring hat she knows where to buy at figures far below Mrs. Jones at the bargain-counter, and the result is a profit to herself and a delight to Mrs. Brown, who never could run around shopping, as she was so busy with other matters. It is surprising the large amount of inside trade in millinery; it is growing almost as common as dressmaking.

A very pretty hat for a June bride is one made of white horsehair, trimmed with white rosebuds, a standing bow of white satin ribbon and a bunch of full-blown roses on the side-front. The horsehair is a braid half an inch wide, and is made over a wire frame. This braid is also made in black, and is very stylish.

There are three crowns very much used this spring—the bell-shape, the dish-shape and the flat. One flat effect for street wear, called the Pan-American, is made as follows: Take a broad-brimmed, perfectly flat sailor-shape with a low crown, and sew on at the top a flat as large as the lower brim. To trim, draw between those two brims, as it were, a pretty scarf of silk or satin, and make a bow on the side-front of the top flat. As a matter of economy, and as the crown does not show, it could be ripped up and made into the top flat. In this case place wire supports between the two flats to keep them about four inches apart; keep the silk to the edge in draping, and stitch to both flats. A strip five inches wide and one yard long will be sufficient. Use the selvage, and hem the other side to keep it from raveling.

E. HARRINGTON.

# HOUSEHOLD

## A SONG OF CONTRASTS

I.

We are too much in cities pent,
In crowds we live in banisbment;
Of Nature and her wondrous ways,
Wbich should excite our eager praise,
No more than mysteries do we know,
Such slaves are we to idle show.

II.

Observe the boasted works of man,
Where Art refines on Nature's plan;
A picture-study, or a book,
Or on some stately temple look;
Perfection nowhere do we find,
No tbougbt so wistful as the wind.

III.

Then mark the throstle, or the bee,
The striped snake, or growing tree;
These living works confess, admire,
And trace perfection in desire;
The small as finished as the great,
For faultless laws on Nature wait.

IV.

Go then where fields or forests tbrive,
Learn wisdom from the busy hive;
Approve tbe rose, or daffodil,
And know how false our boasted skill;
Or look upon the ocean wide,
And mourn tbe foolishness of pride.

—Cbarles Lusted.

## FIRE-CRACKERS AND THEIR MANUFACTURE

AMERICAN ingenuity gets the better of Chinese patience.

"Once we imported our uoise-makers from the Celestial Empire, but now we make them at home," said a fire-cracker manufacturer recently; and he proceeded to give some facts concerning these indispensables of our national celebration.

Did you ever realize that over fifteen millions of dollars are spent in this country for fire-crackers every Fourth of July? Such is the statement made by the dealer. The greater portion of the fire-crackers consumed in this country are of American manufacture, though a year or so ago nearly all of them were imported from China.

In China fire-crackers are made by hand, and it is a very laborious and slow process. About two years ago a New York firm of importers brought into use an ingenious machine for making fire-crackers, which can be operated so productively that even the cheap coolie labor of China cannot compete with it. The product is even better than the Chinese cracker, which it greatly resembles.

This firm has its manufacturing plant on Staten Island, occupying some sixty different buildings, and gives steady employment to about two hundred and fifty people the year round. A veritable revolution in the fire-cracker business has been thus effected.

In China small crackers are seldom used, but are made to export. The Chinaman likes to shoot off fire-crackers in style, and for this end has different-sized crackers woven into large, long strings, called "mandarin packs," which are just coming into use in this country. Mandarin packs contain anywhere from one thousand to forty thousand different-sized crackers. They come in handsomely decorated boxes, the covers of which are brilliant with color. The mandarin packs are intended to be hung from a pole or across the street, so that the lower end does not touch the ground. You set fire to the fuse at the lower extremity, and run, and the pack goes off with a noise that in continuity and volume makes one think of a rapid-firing battery.

The process of making the American fire-cracker is a trade secret; but in China there are no large manufactures, the crackers being made in small houses and in the shops where they are sold. The Chinamen use them upon all occasions of public rejoicing, and in nuptial and funeral ceremonies. Only the cheapest kind of straw-paper is used for the body of the Chinese cracker, and the powder, too, is of the cheapest grade, costing about five cents a pound. The fuse is made from a special paper made from the iuner lining of the bamboo, and is imported from Japan.

The straw-paper is first rolled by hand around an iron rod, which varies in size according to the size of the cracker to be made. To complete the rolling a rude machine is used. This consists of two uprights supporting an axis, from which is suspended by two irons a heavy piece of wood slightly convex on the lower side. There is just room between this swinging block and the top of the table to place the cracker. As each layer of paper is put on by hand the cracker is placed on the table and the suspended weight drawn over the roll, thus tightening it, until no more can be passed under the weight. For the smallest "whip" crackers the workmen use, instead of this machine, a heavy piece of wood fitted with a handle like that of a carpenter's plane. With these crude contrivances Chinese inventive genius seems to have reached its limit. In filling crackers, two hundred to three hundred are tightly tied together in a bunch, red clay spread over the end of the bunch and forced into the end of each cracker with a punch. While the clay is being treated a little water is sprayed over it, which makes it pack closer. The powder is poured in at the other end of the cracker. With the aid of an awl the edge of the paper is turned in at the upper edge of the cracker, and the fuse is inserted through this. The long ends of the fuses are braided together in such a way that the crackers lie in two parallel rows. The braid is doubled on itself, and a large, quick-firing fuse inserted, and the whole is bound with a fine thread. The bundle is wrapped in paper and in this shape sent to the sea-coast ready to export.

A variety of cracker which is very popular in China is the "twice-sounding" cracker; it has two chambers, separated by a plug of clay or paper, through which runs a connecting fuse. There is also a fuse extending from the powder in the lower chamber through the side of the cracker. When the cracker is to be fired it is set on end and fire applied to the fuse. The first explosion sends the cracker high in the air, while the second charge is exploded by the fuse extending through the plug between the chambers.

P. W. HUMPHREYS.

## A COMFORTABLE CAPE

One of the most important things to be provided with in traveling is a comfortable wrap. A cape has advantages over a coat, as it can be more easily removed. It should

be made of the soft, woven, double-faced wools that are capable of being tossed about without creasing. The trimming is stitched satin facings, which come all ready to sew on, while a nice wool fringe trims the collar very prettily. In the warm months when traveling at night one very often finds some very cool weather, especially in the early morning hours, so it is best to be prepared.

## SOME DELICIOUS SUMMER DESSERTS

FAIRY PUFFS.—One pint of sweet milk, five tablespoonfuls of flour, yolks of five eggs, whites of three eggs, four teaspoonfuls of melted butter, one half salt-spoonful of salt. Whip the whites very stiff, and add to the yolks, which have been beaten to a foam. Use an egg-beater, and add the flour next, then the butter, and lastly the milk, beating steadily all the time. Have nine cups warmed and well buttered, and divide the batter between them. Bake in a rather hot oven for forty-five minutes, or until a fine brown tint. Remove to saucers, and serve with honey sauce.

HONEY SAUCE.—Whip one pint of cream until stiff, then add to it gradually the beaten whites of two eggs, the juice of one sweet orange and one ponnd of fine white-comb honey cut into small bits. Place upon ice until ready to serve.

JELLY CREAM PIE.—Use any good puff-paste or pie-crust for the shell, which is molded over the outside of an ordinary pie-pan, this being placed in the oven upon a small can, to prevent the crust touching the oven bottom. Melt one glassful of any desired sweet jelly by placing in a dish with a little warm water, and wheu dissolved allow it to boil until it will set; it is then ready to pour into the shell, which must be very cold. Place in the refrigerator until quite cold. Whip one scant pint of cream, add three tablespoonfuls of fine sugar, and spread over the jelly. Keep upon ice until ready to serve.

FRESH FRUIT CREAM PIE.—Dissolve two tablespoonfuls of gelatin in a little boiling water after having first soaked it over night in cold water. Mash one scant pint of very ripe raspberries, and sweeten well. Stir in the dissolved gelatin, and fill a cold shell of paste. Pile high with sweetened whipped cream, and keep on ice until ready to serve.

QUEEN'S CREAM PIE.—Have ready an extra deep shell of paste for this pie, and fill it with a layer of very fine raspberries, strawberries, sliced bananas, shredded pine-apple or picked-up sweet oranges. Whip one pint of cream and make it very sweet, then add two tablespoonfuls of dissolved gelatin. Put a little of the cream iu with the fruit, and gently stir them together. If desired, the fruit need not be put into the shell until it has been well mixed with half of the whipped cream, then pile the other half over the fruit, and set upon ice. If preferred, the paste can be baked into small shells, and one served to each person.

MEDLEY FRUIT CREAM PIE.—This is a handy pie to make when one has uot enough of any one sort of fruit to make the whole pie. Make as above, using several kinds of berries or fruit; and, if liked, cocoanut cau be added. Ripe peaches cut up fine make a delicious cream pie, and plain stewed and mashed apples with chopped pineapple are very nice.

FRUIT BLANC-MANGE.—Soak one half cupful of gelatin over night in one half cupful of cold water. In the morning add one fourth of a cupful of boiling water, and place in a bowl of hot water until dissolved. Scald one pint of rich milk, add the well-beaten yolks of four eggs and one half cupful of sugar. Let it boil one minute, then remove from the stove and whip in the well-beaten whites of the eggs and one teaspoonful of vanilla. When beginning to stiffen put one third of the mixture in a mold, and set upon ice until stiff; over this place a thick layer of chopped pineapple or sliced bananas or peaches, add another third of the blanc-mange, another layer of fruit, and finish with the blanc-mange. Let stand upon ice until stiff and firm. Turn out upon a handsome dish and pile with whipped cream or the whites of eggs beaten stiff.

TAPIOCA WITH PRUNES.—Soak over night in water two cupfuls of prunes and one cupful of apricots. In the morning stew slowly until the pits can be easily removed; press the pulp through a fruit-press, add one half cupful of sugar, and cook until thick. Soak over night one half cupful of pearl-tapioca, and in the morning put into a double boiler with one pint of rich milk, four tablespoonfuls of sugar and a little salt and vanilla. Cook one hour. In a deep glass dish put one half the tapioca, then one half the fruit, then tapioca, and lastly the fruit. Whip the whites of three eggs to a stiff froth, take out one fourth, and pile what remains upon the layer of fruit. Color the remaining whipped egg a bright pink, and dot it over the white.

MRS. H. L. MILLER.

## TO PROPERLY LAUNDER FLANNELS

I do not suppose in the length and breadth of the land there is a housekeeper who is not more or less annoyed by having her flannels badly laundered, and for the benefit of all such, and especially for the mothers with the tiny sons and daughters, I want to give a receipt which has never failed in fifteen years' use. This receipt is as follows: One ounce of borax, five cents; one ounce of lump ammonia, five cents; one ounce of salts tartar, five cents, and one box of concentrated lye, ten cents. Put these ingredients in a bucket with six quarts of rain-water; stir for a few minutes, and jug up.

It is also excellent for the regular weekly wash, and will preserve the whiteness and texture of the most delicate fabric. The proportion for weekly washing is one teacupful of fluid to one boilerful of clothes, and for flannels three tablespoonfuls to an ordinary-sized bucket. Do not prepare the fluid near the fire.

ALICE WINWOOD ANTHONY.

## ROSE-BALLS

Pound the petals of the red, or Damask, rose in an iron mortar until they form an even and very black paste. Form the paste into beads of any desired form or size; thrust a needle through each one, then dry them until very hard before polishing. These beads will take a fine polish, and are very fragrant.

VIRGINIA REED.


ABSOLUTELY FREE
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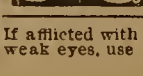
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### CONFIDENCE

Black clouds have thronged to bar the way
Of Love and Calm and Hope,
But through them all I plain can see
Through God's great telescope.
His word it teaches me to pray
And fear no sullen foes,
For though the way is rough and steep
And barred with thorns, he knows!

His gracious spirit will not let
The tempter do me harm;
Why should I fear or even doubt
While leaning on his arm?
Though fierce and wild the tempest roars
And waves run mountain-high,
And thunder crashes through the storm,
He hears the faintest cry.

And he is always ever near
When Death takes one away
Whom we have loved with tender care
Through Life's sweet summer's day.
So I will live in perfect peace
Beneath his circling wing,
And weep no more, but toil and pray,
And closer to him cling.

—Adelbert Clark.

### SOME SOURCES OF "UNCLE TOM'S CABIN"

IN THE old days of slavery Cincinnati, being on the border-line between the North and South, was a favorite rendezvous of fugitive slaves. During her long residence there Harriet Beecher Stowe came in contact with many of these, and the pitiful stories they told were afterward used in "Uncle Tom's Cabin."

It was in 1834, about a year after her arrival in Cincinnati, that the subject of slavery was first brought under her personal observation during a visit to an estate in Kentucky, which was later known as Colonel Shelby's in her great book. Many years after Miss Dutton, who accompanied her on this occasion, said:

"Harriet did not seem to notice anything in particular that happened, but sat much of the time as though absorbed in thought. When the negroes did funny things and cut up capers she did not seem to pay the slightest attention to them. Afterward, however, in reading 'Uncle Tom' I recognized scene after scene of that visit portrayed with minute fidelity, and knew at once where the material for that portion of the story had been gathered."

After her marriage to Professor Stowe their home was frequently a refuge for frightened fugitives, and the inmates slept with arms in the house and a large bell ready to call the young men of Lane Seminary near by in case the slave-catchers should come with a mob to search the premises.

In 1838 she received into her family as a servant a young colored girl from Kentucky. By the laws of Ohio she was free, having been brought into the state and left there by her mistress. Notwithstanding this, Professor Stowe learned that the girl's master was in the city searching for her, and that she was likely to be seized and carried back into slavery. Finding that this could be accomplished by perjury, the Professor determined to remove her to a place of safety. Accordingly he and his brother-in-law, Henry Ward Beecher, both armed, took her in a covered wagon at night, by unfrequented roads, twelve miles back into the country, and left her with the family of old John Van Zandt, the fugitive's friend. It was this incident that suggested the senator's midnight drive with Eliza and her child, as described in chapter nine.

For another servant in her own family, a former slave woman, Mrs. Stowe was called upon to write letters to a slave husband in Kentucky, who, trusted with unlimited liberty, free to come and go on business between Ohio and Kentucky, still refused to break his pledge of honor to his master, though that master from year to year deferred the keeping of his promise of freedom to the slave. It was the simple honor and loyalty of this Christian black man, who remained in slavery rather than violate a trust, that first impressed her with the possibility of such a character as, years afterward, was delineated in "Uncle Tom."—Christian Endeavor World.

CHILDHOOD shows the man, as morning shows the day.—Milton.

### FLASHES FROM SPURGEON

Yes, prepare your prayers—but by preparing yourselves.

Look upon your troubles as the shadows of coming mercies.

Some men only shine like the moon, when they ought to burn like the sun.

Here is a riddle for you: "If Paul was the least of all saints, what size are you?"

It is an awkward experience to preach on the devil and feel full of your subject.

Never parley with Temptation. If he gets you on debatable ground the devil gains.

In speaking be natural, for if you are not B natural you will be A flat. Let every man speak after his kind.

I have often heard of ministers being killed with kindness, but I never yet saw the cemetery where they were buried.

I will decide as the Colonists of Connecticut did. "They said they would be guided by the laws of God until they had time to make better."

Get amongst your people, or somebody may be saying of you, as one old lady said of her minister, That he was invisible all the week and incomprehensible on Sunday.

We need to be as simple as if we were preaching to asses, as indeed we often do. An old farmer, after listening to a sermon on "The fool hath said in his heart there is no God," said to the preacher, "I believe there is a God, after all, though your sermon was very clever."

Let your illustrations be at least tolerably fresh. That one about the ship being lost and one of the crew being saved by a lifeboat, and whispering, "There's another man! There's another man!" What good can be done by so worn out an illustration—except to give some old maids fresh hope?

Shun all affectation in the pulpit. Some preachers seem to think it a means of grace for people to see them blow their nose. As for being weeping ministers—a miserable waste of salt-water. And mind you never get into the goody-goody style. One of this sort said, "I was reading this morning in dear Hebrews."

### THE SILENT CHURCH-BELL

When St. Paul's congregation, Cleveland, moved from the corner of Sheriff Street and Euclid Avenue, in 1877, the large bell which had been in service in the old structure was taken out and placed in the tower of the new building. The bell was a gift to the church, and a costly affair, and it is said to have an especially sweet tone, although a very few of the congregation have ever heard its call to service.

Since that time the bell has tolled but twice—on the occasion of the Garfield memorial services some years ago, and at the funeral services of the senior warden of the church.

The reason for the bell's long silence was an aversion which a prominent citizen, who died some years ago, took to the noise of church-bells. It may have been that the sweetly dissonant clangor of the summoner of the faithful disturbed the citizen's slumber. At any rate, he offered to give a handsome yearly subscription to the church on condition that the bell remain silent. The condition was accepted.

At the death of the prominent citizen above mentioned the annual subscription ceased, but the bell still remained silent. The habit of getting to church without the warning notes of the bell had been formed, and the bell was no longer necessary. Or perhaps the rector, the sexton and most of the parishioners had forgotten that the church possessed such a thing. The world has silenced more than the bell in some churches.—Current Anecdotes.

### THE WHISTLING BOY

We like the whistling boy. We like to fall in behind him as we go down the street. He has as many tunes as the mocking-bird. If it is Monday morning the Sunday-school tunes follow him. If it is after the Dewey parade, the last thing from Sousa. It is the young folks who set the standard in music. The great composer may sigh in vain for recognition, until comes the whistling boy, and girl. at the piano, then his success is assured. If whistling is any index, American boys are full of music. Alone, as he drives the cows to pasture, or rides the horses to water, or goes on errands, the boy takes up the burden of the latest air and makes his ways melodious. It is not to keep his courage up, as the old proverb implies; it is to communicate his superabundant life to others; it is to bubble over as does the fountain. And these airs go about as by some vocal infection, until every other boy has added them to his catalogue of accomplishments.—The Christian Herald.

### THE SPIRIT OF GOOD WORKMANSHIP

"When I was a boy in a printer's office," said Robert Bonner, "and it came along about three o'clock in the afternoon, I would say to myself, 'Suppose the proprietor should come up to where we were at work, and say, "Robert, what have you been doing to-day?" what would I answer?'"

"He never did such a thing, but I used to reason to myself, 'Suppose he were to do it?' If I could not, with pride and pleasure, point to what I had been doing I would pack up at six o'clock and leave the place.

"I consider that spirit an element of success, and there is always room for men who show that kind of disposition. The indolent man, who shiftlessly goes through his day's work, will never reach the goal of success. The man who is constantly watching the clock, waiting until it shall strike six, and trying to 'kill time'—well, it will not be long before time will kill him, so far as business is concerned."—Forward.

### EXPLANATION OF BIBLE PHRASES

A day's journey was about twenty-three and one fifth miles.

A Sabbath day's journey was about an English mile.

A cubit was nearly twenty-two inches.

A hand's breadth is equal to three and five eighths inches.

A finger's breadth is equal to about one inch.

A shekel of silver was equal to about fifty cents.

A shekel of gold was $8.

A talent of silver was $538.30.

A talent of gold was $13,809.

A farthing was three cents.

A piece of silver or a penny was thirteen cents.

A mite was less than a quarter of a cent.

An ephah, or bath, contained seven gallons and five pints.—Christian World.

### GET WISDOM

When the frost touches a young man, and he grows wise and cold and cynical, he has gone beyond the song of the children. "I tell you," said a young man of this class, "I have been up and down the world a good deal, and mixed with all kinds of people, and I have mighty little faith in preachers or any other kind of reformers. People are all alike. I know them. I've cut my eyeteeth."

"Thee doesn't seem to have cut thy wisdom-teeth yet," remarked an old Quaker who happened to hear him.—Baltimore Methodist.

### AN OBJECT-LESSON

Sir Walter Scott, while crossing one of the lakes in Scotland, noticed that on one of the boatman's oars was written the word "Faith," and on the other, "Works." He asked what it meant. For answer the old man laid hold on the oar "Faith" and beat vigorously upon the water. The boat went round and round. Then he let that oar alone and used the other, "Works." The boat still went round. Then he rowed with both "Faith" and "Works," and the boat went straight forward.—Ram's Horn.

### DO AND TRUST

Ian Maclaren said: "Never mind whereabouts your work is. Never mind whether it be visible or not. Never mind whether your name is associated with it. You may never see the issues of your toils. You are working for eternity. If you cannot see results here in the hot working-days, the cool evening hours are drawing near, when you may rest from your labors, and then they may follow you. So do your duty and trust God to give the seed you sow 'a body as it hath pleased him.'"

THERE never was a day that did not bring its own opportunity for doing good, that never could have been done before, and never can be again.—W. H. Burleigh.


# A Good Complexion

**DEPENDS ON GOOD DIGESTION**

This is almost an axiom although usually we are apt to think that cosmetics, face-powders, lotions, fancy soaps, etc., are the secrets for securing a clear complexion. But all these are simply superficial assistants.

It is impossible to have a good complexion unless the digestive organs perform their work properly, unless the stomach by properly digesting the food taken into it furnishes an abundance of pure blood, a good complexion is impossible.

This is the reason so many ladies are using Stuart's Dyspepsia Tablets, because they promptly cure any stomach trouble, and they have found out that perfect digestion means a perfect complexion and one that does not require cosmetics and powders to enhance its beauty.

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Bear in mind that beauty proceeds from good health, good health results from perfect digestion, and we have advanced the best argument to induce every man and woman to give this splendid remedy a trial.

Stuart's Dyspepsia Tablets can be found in drug-stores, and cost but 50 cents per package.

If there is any derangement of the stomach or bowels they will remove it, and the resultant effects are good digestion, good health, and a clear, bright complexion.

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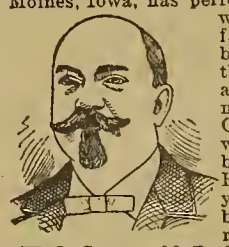

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# The Independence of "Idelly"

BY MORRIS WADE

MYRA THORPE had walked the half mile between her house and the home of her cousin, Idella Pratt. It was a warm day in the latter part of June, and Myra had reached her cousin's house "all het up." Myra lost her serenity and self-poise readily, and the heat of summer always irritated her. Things had gone wrong all morning in her home, and she was not in the most cheerful mood when she reached the Thorpe farm-house. She found her Cousin Idella out on the back porch churning in a big stone churn with a wooden dasher. The dasher went up and down rather listlessly in Idella's hands, for although she was a tiny and bloodless-looking woman, Idella also felt the heat. It had been an exceptionally cool summer thus far, and the hot wave had been sudden and unexpected. There was more color than usual in Myra's face this morning, and her fat cheeks were of a lobster hue as she mounted the porch-steps and dropped heavily into an old wooden rocker with a faded chintz cushion. Myra whipped off her big gingham sunbonnet and began fanning herself vigorously with it after she had said:

"My land, ain't it hot? I'd no idea it was so hot until I got out in the sun. I thought I'd melt before I got here. I hate hot weather. If this keeps up there'll be no living with me, I'll be that cross. I'm glad I got my churning out o' the way before breakfast this morning."

"I would have tried to have done mine then if I had known that it was going to be so hot," said Idella, wearily. "Let me get you a fan, Myra."

"Oh, don't bother. The tail o' my sunbonnet will do, and anyhow I think it only makes one hotter to fan one's self. At least you feel the heat more when you stop fanning."

"I'll go and get you a drink right from the well."

"No you needn't, Idelly. The less cold water a body drinks on such a day the better. I never drink when I'm all het up this way. I'll go and get myself a drink before I go home. How much butter you churning a week now?"

"I churned thirty-seven pounds last week."

"How much you getting for it? We're not selling any now. You know three of our cows are dry."

"I don't know how much Laban got for the butter last week. I didn't ask him."

Myra gave a little snort of irritation, and there was a sharp note in her voice as she said:

"I guess I'd know how much Reuben Thorpe got for butter I had churned. The fact is, he'd have to ask me how much it brought before he knew his own self. You know that I have all the egg-and-butter money myself, Idelly."

"Yes, I know," replied Idella. The flush deepened on her face as she spoke.

"I just let Reuben Thorpe know from the day we were married that there was going to be two pocketbooks in our family, and that mine wasn't going to be empty all the time, and that there wasn't going to be any 'allowance' about it, either. I was ready and willing to work hard to keep up my end of the row, and I was bound to have something for it, and I wasn't going to have my work cheapened by being paid for it with an 'allowance' from my husband's pocketbook. I was bound I'd be independent of him or any other man when it come to my spending-money. I've heard of women who said when they married that they liked to be dependent on the 'generosity of their husbands.' That sounds mighty well, but the generosity of the average husband ain't the safest thing on earth to tie to after the honeymoon is over, and the wise woman will need something more definite to depend upon for her regular cash income. But then I didn't traipse away over here with the thermometer in the nineties to talk as if I didn't have one of the best husbands in the world, for I have. I come over to borrow your big, round cake-pan, the one with a spout in the center. You know that Friday is my Lucy's birthday, and she is going to have quite a party, and I want to bake her a cake bigger than I can bake in any of my tins. I'm going to frost it all up nice with red and white frosting, and I want that you should let your Hettie come over to the party. I'll send the tin back some time to-morrow. I s'pose you are willing that I should have it?"

"Why, yes, Myra; I'm willing enough. Indeed, you are more than welcome to it so far as I am concerned, but—but—" she looked confused, and the color in her face deepened as she said, "You see, Laban is away over in the north field at work, and I can't ask him about it, and he doesn't like to have me loan anything without him knowing about it. I'll ask him the minute he comes home, Myra, and if it is all right, and I'm sure it will be, I'll send Willie right over with it or come myself. I'm so sorry Laban isn't here so you could take the tin right with you."

Myra ceased fanning herself and at the same time ceased rocking in the creaking old rocking-chair. She grasped the arms of the chair firmly and stared at Idella with flashing eyes and tightly compressed lips. Idella grew nervous and uneasy under that stony stare. Her face crimsoned and her eyes were downcast. Myra's lips opened with a snap. Her voice had a metallic ring as she said:

"Well, Idelly Pratt! Do you mean to stand there and tell me that you can't loan even your own cousin a cake-tin without asking leave of your husband? Upon my soul!"

"Oh, I'm sure that Laban wouldn't object, Myra; only he don't like to have anything loaned off the place without his knowledge. He wants to be neighborly, I know, and—"

"Neighborly!" said Myra, with an outburst of scorn. "I think he'd better learn to be husbandly first! And it ain't husbandly for a man to keep his wife from saying that her soul and her cake-tins are not her own!"

"Oh, Myra! I'm sure that—"

But Myra had now thrown all discretion to the winds. She had long wanted to "have her say" regarding Laban Pratt's attitude toward his wife in regard to her "rights," and she felt that the time had come for her to "come out flat-footed" and give Laban his dues. Idella's meek and humble submission to Laban's authority had long been a source of comment and irritation on the part of Myra, and she had long wanted to give Idella a "talking to" in regard to it.

"See here, Idelly," said Myra. "Do you know that the whole neighborhood is talking about the way Labe Pratt has you under his thumb? I vow, Idella, if I was you I'd muster up a little independence! Why, Idelly, you ain't no more independence or individuality than a—a—a—well, than a jellyfish! No, you ain't! And the time will come, if it ain't already arrived, when Laban will despise you for your meaching pulingness! No man admires or respects a woman who is like a lump of putty in his hands! I don't think that my husband has ever been any prouder of me than sometimes when I have held out firmly for my own rights. Men like a little spirit in a woman. Why, Idelly, it's awful, it's ridikilous the way you give up to Labe Pratt! Now, ain't that cake-tin your own? If I ain't mistaken, it is one that your mother had, and that you got with the rest of her things when she died. Ain't that so?"

"Yes, it was mother's," replied Idella, with her eyes cast downward.

"Well, then, it isn't Laban Pratt's now; it's yours. There is no law of God or man that says that a wife and everything she's got on earth shall belong to her husband, the same as his pig belongs to him. I ain't no woman suffragist to the extent of wanting to vote, but I'll own up that the women suffragists have done a blessed thing in getting their rights for married women. Now, Idelly, I'm going to speak plain for your own good. I have had it in mind to do so for a long time, and now I'll have it out with you! Idelly, you're a fool!"

"Why, Cousin Myra!"

"It's so, Cousin Idelly! Any woman is a fool who gives up to her husband the way you give up to Laban Pratt! Now, see here, Idelly; next week is Independence Day, ain't it? Well, you need to come out from under oppression just as much as the Colonists did more than a hundred years ago. They didn't suffer any more unfairness and oppression than you are suffering now. If I were you, Idelly Pratt, I would try to get enough of the spirit of independence in me to stand up for my rights. I'd begin on Independence Day, if not sooner; now, I vum I just would! Just as sure as you don't muster up more spirit Laban will come to despise you as he despises the dirt under his feet!"

"Why, Myra!"

"I tell you he will! You'd better begin being independent by loaning me that cake-tin without saying anything to Laban about it; and if he misses it you tell him that you let me have it, and if he raises a row you tell him that it is your own, and that you'll do as you please with it! I don't want to come in between any husband and wife, but in this case my meddling is for your own good. Where's that tin, Idelly?"

Myra got up as she asked the question. Idella went into the pantry, and came out with the cake-tin in her hand.

"Here it is, Myra," she said. "You are welcome to it."

"I know I am, and I know that Laban would be perfectly willing that I should have it. Laban has his good streaks, like most men, and it's a good deal your fault that he is the man that he is to-day, in some respects. You ain't managed him right, and you ain't managed yourself right. I must go now. You be sure and let Hetty come over to the party."

"I will if her father thinks best for her to—"

"There it is again!" exclaimed Myra. "Do you s'pose I'd think of running to Reuben Thorpe about it if I wanted to send my little Hester to one of the neighbors for the afternoon? Well, I guess not! Now, Idelly, do for pity's sake spunk up and have a little will of your own!"

Idella thought long and seriously of all that Myra had said as she went about her work after she had gone. She was forced to the conviction that all that her cousin had said was true. Idella had already begun to feel that her husband did not respect her, and she had begun to lose respect for herself. She had begun to feel that she had started out on her matrimonial career with false conceptions regarding her duty to her husband. She felt that she had made a mistake in merging her individuality so entirely into his that she had no will of her own, no freedom of action.

"Myra was right," said Idella to herself an hour after Myra had gone home. "I am a poor, spiritless creature unworthy the respect of my husband or of myself. Laban will come to despise me, if he does not do so now. It is time for me to develop a little independence, and I will do it. It will be better for me and better for Laban if I do it—assert myself as I ought to have asserted myself years ago."

During the afternoon Mrs. Pratt had another caller in the person of old Squire Thompson. He made his errand known a few minutes after his arrival.

"You see, Mrs. Pratt," he said, "we are getting up a grand Fourth-of-July celebration to take place over in my grove on the river-bank. It looks now as if it would be the biggest affair of the kind we have ever had in these parts. The folks from Union Township are going to join in with us, and we are going to have just the biggest kind of a time. We had a committee-meeting last night at my house, and when it came to deciding on who should read the Declaration of Independence the committee agreed unanimously that we would ask your daughter Hetty to do it. She's the best speaker I know of—speaks up good and loud, and you can understand every word she says. I reckon she'd be willing to do it and that you would be willing to have her?"

Idella's heart swelled with motherly pride. Hetty was not at home, and her mother said:

"I know that Hetty would be glad to do it if her father felt willing to have her do so. I will ask him as soon as he comes home and—" Idella's new resolution came suddenly to her. She hesitated for a moment, then she said, with decision, "Hetty will do it. You may put her down on the program. I thank you for the compliment you pay her in asking her to take so important a part in the celebration. Nothing but illness will keep her away."

When Hetty came home an hour later and heard of the Squire's call her bright eyes shone with pride and pleasure. Suddenly she grew grave, and said:

"But oh, mother, what shall I wear? I couldn't get up before all of the people in my faded old blue and white challie that I have outgrown, and you know that it is my best summer dress. Then father said, when you asked him about it, that he could not afford to get me a new hat this year, and you know how dreadfully shabby my old one is. Oh, mother, I just couldn't get up before all of the people in that old hat and dress. I will have to give up reciting the Declaration."

Idella's new spirit of independence ran high at that moment.

"No, you will not give it up, Hetty," she said. "Nor will you have to get up before all of the people in your shabby and outgrown old garments. You shall have a pretty new white dress and just such a lovely pink and white hat as I saw in one of the shop-windows when I was in town last week."

"But father said that—"

"Mother said that you are to have the new things necessary for you to make a good appearance when you read the Declaration," said Idella, with a smile. She felt her long-dormant will-power rising within her. Her voice was fairly exultant when she said:

"We will go to town to-morrow morning and get everything that you need. I shall need some things for myself and for the other children."

"But will father allow you to—"

"Now, Hetty dear, you must leave it all to me. I will arrange it all with your father."

Idella had too much womanly pride and was too loyal to her husband to speak disrespectfully of him before their children, or she might have said that she did not care anything about what her husband said or thought in her first moments of freedom from the thraldom that had bound her for so many years. She knew that her husband could very well afford to clothe his wife and children far better than they had ever been clothed. Moreover, she had in the bank in the town five hundred dollars that had come to her from the estate of her father. She had often wanted to draw some of this money and use it for her own needs and for the needs of her children, but Laban had always opposed her. In her new spirit of independence she felt that it was her just right to use this money as she pleased.

When Laban Pratt came home Idella told him of Squire Thompson's call, and that the acceptance of the invitation would make it necessary for Hetty to have new clothes.

"Then she can just send word that they can get some one else to do their reading of the Declaration," said Laban, promptly. "I've no money to spend for foolerols, and I doubt if I can spare the time to go to the celebration, anyhow. Like as not, we will all stay at home."

"The children and I are going, Laban."

Laban was out in the barn-yard putting a new handle into one of his axes when Idella had this conversation with him. He glanced up quickly, surprised at the new note in his wife's voice, and surprised that she should have come to a decision regarding anything without first consulting him. She had been his obedient subject so long that he resented this sudden assumption of independence.

"What!" he said. "You and the children are going to the celebration whether I say so or not?"

"We are going to the celebration, Laban. It is months since we went any place, and all of our neighbors are going to take time to go to the celebration. Why shouldn't we? Then Hetty has been asked to recite the Declaration. It is a real honor, and I want that she should enjoy it."

"I thought you said that she didn't have fit clothes to wear, according to your ideas about clothes?"

"She has not, Laban; but I intend to get her such things as she will need to make a good appearance."

Laban stared hard at his wife over the tops of his glasses. This second setting aside of his authority almost caused him to think that his wife was wandering in her mind.

"See here, Idelly," he said, severely, "I told you that I had no money to waste for duds, and I ain't. I don't intend to lay out any money for anything that ain't a real necessity, and this finery you and Hetty seem to have set your hearts on ain't in any way a necessity. Now that settles it!"

He picked up his ax and walked toward the barn without giving Idella the opportunity of making any reply. She went back to the house in silence, unshaken in her resolution. The town was less than two miles distant, and when her husband had gone to work the next morning Idella and Hetty walked to the town and returned heavily laden with the many purchases they had made. Hetty was radiantly happy. Never before had she had such pretty things, and she had the love of dress that is the natural and lawful prerogative of nearly all young girls. Idella had bought herself a pretty new black and white lawn, and had ordered the first new bonnet she had had in five years. She made so many purchases that it was certain that neither she nor any of her children would go shabby to the celebration. She kept her sewing out of sight when Laban was around the house, but she and Hetty applied their needles so industriously, and kept Idella's sewing-machine in such constant motion, that the new garments were all done on the day before the Fourth. Idella had been a dressmaker before her marriage, and Hetty was a "natural born" seamstress.

Idella made no further reference to the approaching celebration in the presence of Laban, and he did not doubt for a moment but that she had yielded her will to his and had given up all thought of going. He had stubbornly decided not to go, partly to rebuke his wife for her assumption of authority and partly because the haying season had just begun and he, with his treadmill-like propensity to work without ceasing, did not want to "fool away any time" attending the celebration. As Idella said nothing about attending the celebration on the morning of the Fourth, and as Laban went off to a distant meadow to attend to his haying, leaving her washing her dishes, he triumphed in the thought that her sudden outburst of defiance of his authority had been but temporary.

"Women ain't any backbone, anyhow," he said to himself, as he walked over to the meadow leading the horse he was to hitch to his mower.

He thought differently when he came home at noon, hot and hungry, to find the house deserted. He had left his boy of ten years hoeing potatoes near the house, and had charged him not to lose any time, but to try to finish his work by noon, so that he could go to the field and "rake after" in the afternoon. But the boy was gone, and so were his wife and the two girls.

An abundant and excellent cold dinner with a clean cloth thrown over it was set on the kitchen table. Laban at once suspected the whereabouts of his wife, and his suspicions were confirmed when he went out to the barn and found his other horse and the light wagon gone. His wrath and his sense of injury were great. His mental comment as he ate his dinner was:

"I'll saddle the horse and ride right over to the grove and march them all back home! I'll let them know how they will set my authority aside like this! I'll hurry right off, and I'll have them back home in two hours! It's a great idea if a man isn't to be master of his own house!"

Laban was astride his horse and riding toward Thompson's grove a quarter of an hour after he had eaten his dinner. It was a beautiful day, "with cheek all incense and with breath all bloom." Laban found himself catching something of the spirit of the day as he rode along through the cool woods and over the grassy hills. He noted that all of the farm-houses he passed had a deserted look, and he rightly conjectured that all of his neighbors had gone to the celebration. At only one house did he see any one, and that was at the home of David Norton. Here he saw David's mother—old Mrs. Norton, whom Laban had known from boyhood—out in the pretty flower-garden in front of the house. She came down to the gate when she saw Laban approaching.

"How do you do, Laban?" she called out, in her shrill but cherry voice, as Laban drew near. "Going to the celebration, I reckon? Well, that's right. A body ought to think enough of one's country to give up one day to honoring it and the men who made it free and independent. I'd be over at the celebration myself, but a crowd tires me so, and I ain't been quite myself for a few days, so I said I'd stay home and see to things while the others went. I see your folks go by here this morning. They stopped, and I had a few words with them. Amazing pretty girl your Hetty is, and I hear that she is the smartest girl in this neighborhood. You ought to be proud of her. Idelly said that you didn't feel that you could take time to go to the celebration, but I'm glad you changed your mind. I reckon it'll be a s'prise to your wife and the children to see you there, after all. Hope you will have a good time."

Laban rode on, pondering some of the things the little old woman had said, and he was less wrathful by the time he had reached the grove.

The afternoon program had just begun when Laban reached the grove. There was a great crowd, and Laban could not at first see anything of his wife and children. He was standing near the platform looking about him when old Squire Thompson came forward and said:

"We will now have the Declaration of Independence recited by Miss Hetty Pratt."

Laban could hardly believe that the beautiful young girl who came to the front of the platform was his own daughter. Hetty looked wonderfully fair and sweet in her new white dress and white hat, with the pink roses and ribbons on it. Her cheeks were the color of the pink roses on her hat as she stood before the great audience with a smile on her face. Laban suddenly felt his heart thrill with fatherly pride as he looked at her. He had always been niggardly in the use of money for clothes, and never before had he seen Hetty

arrayed in beautiful garments from head to foot. He did not know that his eyes were full of admiration, and he was hardly conscious of the swelling pride in his heart as he looked at Hetty. She had a sweet, clear voice that did not quaver with fear or excitement as she began to recite the splendid old Declaration. Never before had she spoken so well in her father's hearing. And when she had made her bow and had left the platform her father found himself applauding vigorously with the rest of the crowd. Some one by his side said to him:

"I tell you, Laban, that is a mighty bright little girl of yours, and she's purty as a peach. I should think you'd be mighty proud of her."

Laban turned and saw one of his neighbors by his side, and a moment later another neighbor came forward and said almost the same words to him.

Laban was walking away with a new and strange feeling in his heart, when he felt a hand on his arm and saw Hetty looking up into his face.

"Oh, father!" she exclaimed, "I am so glad that you came! Mother and little Willie and Lucy are right over here under the trees. I'll show you where they are. Mother will be glad that you came. We have had such a lovely time. Did I speak well, father?"

"Yes, you did, Hetty," he said, with a tone of genuine pride in his voice.

"You know I saw you the moment I came out on the platform, father, and you helped me to speak my best, for I wanted that you should be proud of me, father."

Hetty was excited by her triumph and by the applause or she could not have spoken thus to her father; and he was carried out of himself by his new feeling of pride in his daughter or he would not have said:

"I am proud of you, Hetty!"

Laban was as much surprised when he saw Idella as he had been when he had seen Hetty on the platform. It had been years since he had seen his wife in a new dress, a new bonnet and new gloves. Her cheeks were flushed and her eyes were aglow over Hetty's recitation. Idella had been a pretty girl, and she looked ten years younger under the magic touch of happiness and pretty clothes. She came hurrying forward to meet Laban and Hetty.

"Oh, Laban!" she said, impulsively, "I am so glad you came! Did you hear our Hetty, Laban?"

"Yes, I did, Idelly.

His voice was kinder than it had been for years, and there was a new light in his eyes as he looked at Lucy and his little boy in the neat new clothes their mother had bought for them. There was not a better-dressed family on the grounds, and Laban felt rather ashamed of his own shabby old clothes.

"You are all fixed up so fine I should think you would be ashamed to have me with you," said Laban.

"Oh, Laban, you know we are not a bit ashamed of you, and the next time we go any place you shall be fixed up fine, too. Now let us all sit down and listen to the singing and speaking."

But Laban did not hear much of the singing and speaking. His thoughts were busy with other things. A strange transformation had been wrought in the heart of Laban by the independence of Idella. Laban's eyes wandered from her to his happy, prettily dressed children, and his pride in them grew apace. He saw other men around him with their wives and children, and there were happy family groups everywhere. He hardly knew why he did not resent it when Myra Thorpe came up at the close of the speaking and said:

"Well, Laban, Idelly stole a march on you, now, didn't she? And you come tagging after her, which was the proper thing for you to do. Ain't it a lovely day, and hasn't everything gone off splendidly? I don't know when I have ever enjoyed a Fourth so much. You look real happy, Laban, and I declare if Idelly don't look like a girl! It pays to be happy, now, don't it?"

Idella knew that her independence had been condoned and her rebellion forgiven when Laban said at about five o'clock:

"If you and the children want to stay and see the fireworks, Idelly, I will ride out home and do the milking and the chores and come back for you. You might as well enjoy the whole thing; and the fact is, I'd rather like to see the fireworks myself."

Idella followed Laban out to where his horse was hitched, and said, with a look of appeal in her eyes:

"And you don't mind my—my—independence, Laban?"

"Mind it? Well, the fact is, Idelly, it would have been better for us both if you'd mustered up your independence years ago.

# The Utility and Necessity of Dust in Our Atmosphere

BY REV. J. W. GUNN

STUDENTS of nature are opening to us a wonderful book; one discovery follows another in such rapid succession that only the most studious can keep abreast of the times. The chemical analysis of light, the use of electricity as a motive power, the telephone and other discoveries surpass the dream of Aladdin. To these may now be added the marvelous utility and necessity of dust in our atmosphere.

Formerly it was thought that the natural color of pure air and water was blue, but so pale as to be invisible when in small quantities, and exhibiting the true tint only when we look through greater depths of either one; but this did not explain the gorgeous tints of a sunrise or sunset and other familiar phenomena.

In 1867 and 1868, when the revelations of the spectroscope were the amazement of the scientific world, Professor Tyndall made some experiments on the visibility and invisibility of air, and this was the first step in a series of most intensely interesting discoveries, a few of which we will explain in part.

The familiar phenomenon of a sunbeam shining through a rift in the clouds or entering a partially darkened room always revealing the presence of dust in the atmosphere suggested that if there were no dust-particles in the air the sunbeam might present a different aspect. To test this he took a long glass cylinder, exhausted the air, and filled it again by letting the air pass slowly through a fine gauze of intensely heated platinum wire, so as to consume all the dust-particles in the air; then a ray of electric light passed through the cylinder without illuminating the interior, and the cylinder viewed laterally appeared as if filled with an intense black cloud. Now, if more air is passed into the cylinder through the heated gauze, but so rapidly that the dust-particles are not wholly consumed, a slight blue haze will first appear, increasing to the pure blue of a cloudless sky; but with more dust-particles admitted it changes to the colorless illumination of ordinary air.

The explanation is this: The number of dust-particles in the air is so great that they reflect the light fully and cause the interior of the vessel to appear illuminated. The air which has passed slowly over the white-hot platinum has had the dust-particles destroyed, thus showing that they were almost wholly of organic origin, which is also indicated by their extreme lightness. The dust being absent and pure air being transparent, there is nothing in the cylinder to reflect the light which is sent through its center in a beam of parallel rays, so that none of it strikes against the sides; hence, the inside of the cylinder appears absolutely dark. But when the larger particles of dust are removed or filtered out, the minute particles reflect only the blue, or more refrangible, rays, as seen in the upper deep. When the coarser particles of dust are present, as in our lower atmosphere, the red and yellow rays prevail.

By the law of gravitation the coarser particles of dust are floating in the air near the earth's surface, and these reflect all the rays of light, and consequently produce all the colors, while the fine, light dust that floats far above has only sufficient body to reflect the blue, or most refrangible, rays, which are of shorter wave-length; hence, a cloudless sky gives us the pure blue of the heavens above us, and the rays of the rising and setting sun reaching us through a varied strata of dust and vapor produce an endless variety of tints and gorgeous colors.

Solid dust is always present in our atmosphere throughout its whole depth. It is estimated that twenty million meteorites reach our earth every day, and most of these are broken up by the friction of our air, furnishing a supply of "cosmic dust," which being excessively fine, and even invisible, settles very slowly to the earth. Terrestrial dust, wafted into our atmosphere by ascending currents of air, is of many kinds and from many sources—from volcanic explosions, abrasion of rocks, from burning forests, from fuel in factories, mills and motors, and on down to the pollen of flowers and the whiff of a cigarette—numbering millions to the cubic inch, and every atom with its mission.

As late as 1880 Mr. John Aitkin found that when he exhausted the air from a large glass receiver, and filtered air into it through cotton wool, so as to keep out all the dust-particles, a jet of steam admitted into it did not form a cloud as when filled with ordinary air, but it remained quite transparent. When no dust-particles are in the air to serve as a nucleus for condensation, the vapor in the air cannot condense. It is remarkable that water-vapor never condenses except upon a solid substance. In air quite free from dust, water-vapor has been cooled far below the dew-point without condensation; but the instant a little common, or dust-laden, air is admitted each dust-mote becomes the nucleus of a globule of water. All condensation of water-vapor in the air, whether as rain, mist, fog, cloud or snow, takes place on a nucleus of dust. Of dew and frost I shall speak later.

The density of a cloud is proportioned to the number of dust-particles; so steam, when the atmosphere is full of dust, appears in greater volume than at other times. Rain formed in our higher atmosphere condenses in larger drops than that formed in the lower, because there are fewer particles of dust upon which condensation can begin; these break up in their descent.

If there was no dust in the air escaping steam would be invisible; there would be no cloud in the sky, neither rain nor snow. Evaporation is ever going on at a marvelous rate. Our atmosphere holds in its embrace all the gentle dews, the hoar-frosts, the genial showers and the torrents that fall upon the earth; but if there was no dust in the atmosphere all its moisture would return to the earth in heavy dews and condensation upon vegetation and the surface of the ground. The heat of such an atmosphere might be very great, and the growth of vegetation like that of the carboniferous age—the world would hardly be habitable by such beings as ourselves.

Fog differs from mist in not wetting solid objects with which it comes in contact; mist soon evaporates under the rising temperature, or precipitates in a colder.

Where great volumes of smoke and soot are produced in manufacturing districts, and the temperature falls suddenly below the dew-point, each dust-mote receives a small coating of water. These minute globules in the absence of wind hang for days suspended in the air. This is fog. The London fog in November, which Thomas Hood has so uniquely described, is of this class. These fogs are not confined to the land; they are formed in the same way at sea when the air is chilled by an iceberg. The fog-banks of Newfoundland are doubtless formed from the smoke and soot of the manufacturing district of our Atlantic coast.

One would suppose that at a distance from land the atmosphere would be entirely free from dust; but this is far from being the case. Indeed, sailors speak of "dusty ocean roads" and "dusty seas." The captain of an American sailing-vessel was so impressed with the phenomena that he had the decks of his ship carefully swept and the dust measured during a voyage of ninety-seven days from New York to San Francisco, and the amazing amount of twenty-four and one half barrels was the result.

The greatest volcanic eruption since A.D. 79, when Vesuvius destroyed Herculaneum and Pompeii, was doubtless that of Krakatoa in the strait of Sunda, August 27, 1883. The mountain walls had melted down, which admitted the sea. The surface of the molten lava was cooled for a time, then a stream of millions of tons of lava, glass and ashes shot up into the heavens twenty miles high; windows were broken and walls cracked a hundred miles away at Batavia. Two thirds of the island disappeared, other islands were formed, and thirty-four thousand people perished in the accompanying ocean wave. The fine dust of this explosion was carried to every part of the earth, and caused the magnificent red sunsets that were visible everywhere during the autumn and winter of 1883 and 1884.

Gentle dews and hoar-frosts have refreshed the earth from the time when Adam and Eve walked in the garden in the cool of the day to the present; but until a few short moons ago the whole phenomenon was misunderstood. For a long time to come we shall speak of "falling dews," yet no such thing takes place. "By His knowledge the depths are broken up and the clouds drop down dew."—Prov. lii, 20. But there is no dew on a cloudy night. "The chilling winds from the lakes brought a heavy frost."—late novel. But alas! there can be neither dew nor frost when there is wind.

Dew is uniformly formed on a clear, cool night after a warm day. Hoar-frost is frozen dew, and follows the same conditions. The winds are uniformly drying, and take up the moisture in the atmosphere whether in fog, mist or what would precipitate in dew. For this reason there can be neither dew nor frost when there is wind. The clouds form a screen between the earth and the higher atmosphere, which prevents the heat from radiating to a sufficient extent to form dew.

I have previously said that water-vapor never condenses except upon a solid substance, and that rain, mist, cloud, fog and snow condense on a nucleus of dust. All substances like grass, green leaves, hay and straw are found to be poor conductors of heat, but excellent radiators. The atmosphere in a hot day accumulates moisture rapidly; this gravitates toward the earth, and coming in contact with the grass, etc., which has become cooled by radiation, chills the air below the dew-point and condenses the water-vapor on their surfaces. Thus dew is formed (if cold enough it is frost). Dew and frost do not form upon the dusty roads and gravel walks, for these retain their heat and do not cool the air to the dew-point. The simplest formation of dew is the condensation of vapor upon a pitcher of ice-water.

Without dust the sky would appear black; the stars would be visible at all times—day and night; reflected light would be almost unknown, the direct rays of the sun giving an intense white light, and everywhere out of the direct rays intensely black shadows. The sun would rise and set with all the startling suddenness of the turning on or turning off of an electric-light.

Dust gives us the pure blue of the upper deep, and all the gorgeous tints and hues of a glorious sunset, and most that is beautiful could not exist without dust in our atmosphere.

The transcendent beauties of our Indian summer have their origin in the burning prairies a thousand miles away. The fine dust from the deserts of Africa give the mellow tints to Italian skies. The red dust of southern Algeria falling with a gentle shower of rain in Europe gave rise to the oft-repeated superstition "that it rained blood."

Modern civilization has stirred up no little dust, and there will be more before there is less. The increase of dust means the increase of clouds—not necessarily the increase of rain. What effect this will have upon our climate and our crops, upon fruit, grain and vegetables, it is probably too soon to discuss. Some change is going on. The limit-line of successful cultivation has been moved northward three hundred miles within the past fifty years, giving us a fertile belt across this continent larger than all of France and Spain.

The investigations of Tyndall, Gray, Wallace and Mill, to whom we owe so much, have removed most of our prejudices against dust; still there is a darker side. Many minute one-celled organisms which are probably plants, and which grow only in decaying vegetable substance, are closely allied to the fungi and molds, and are designated by microscopists as bacteria, bacilli and microbes and classed as micro-organisms. These are now the most absorbing study of the medical world. The spores, or undeveloped cells, of many kinds of micro-organisms form part of the dust in our atmosphere, and are present everywhere. The theory is that when these find a suitable place to grow in—for example, the blood or the tissues of a person not in strong health—they develop and multiply, producing by their vital processes certain poisons, which give rise to disease. Different species of micro-organisms have been detected as the cause of cholera, consumption, diphtheria, etc. The recognition of this cause of disease has led within the last few years to the greatest advances in medical treatment.

## THE LIBRARY OF THE TEMPLE OF BEL

Prof. Herman V. Hilprecht, the distinguished curator of the Babylonian section of the Archaeological Museum of the University of Pennsylvania, says the Philadelphia "Public Ledger," recently returned from another year's labor in his chosen field, the exploration of the ruins of the ancient city of Nippur, during which time he has made probably the most important archaeological discovery of the nineteenth century.

Prof. Hilprecht gave a "Ledger" reporter an interesting talk descriptive of the work attempted and the results attained during the eleven years since he commenced the excavations at Nippur under the auspices of the University of Pennsylvania, and gave a particular account of the great discovery of the library of the Temple of Bel (or Baal, as it is written in the Old Testament). The value of this discovery can hardly be overestimated. The library of clay tablets contained writings not only in the characters used two thousand years before the Christian era, which were the very latest tablets in the library, but the majority were in the cuneiform characters peculiar to the more ancient writings. They cover every branch of the literature of that early period, long before the day of Abraham, and tell of a civilization of which no word has come down to us.

Prof. Hilprecht's party consisted of Prof. J. H. Haynes, whom he considered to be the "backbone" of the expedition to Nippur. As Prof. Hilprecht's diplomatic duties in securing and maintaining the favor of the Turkish government required him to be absent during a portion of the time, Prof. Haynes took his place in the field. For this he was eminently qualified by his experience in former years with the earlier expeditors. He also had with him two architects—Mr. Gere, an Englishman from Southampton, and Clarence Fisher, a graduate of the architectural department of the university.

They entered upon their work under better auspices than when they first attempted it. Then the Bedouins were so hostile that they burned their camp, and compelled them to flee for their lives; this time the Turkish government gave them not only what it generally gives to expeditions, necessary protection, but much more than that. It provided in the most liberal manner for Prof. Hilprecht's party, giving him orders upon the governors to pass everything free of duties, and gave them permission to carry weapons. The Governor of Bassorah sent a special escort to meet him in the desert, and he was received with military honors.

Nippur is situated seventy miles south of Bagdad, nearly east from the margin of the Affej swamps, which are inhabited by troublesome Bedouins. It is a large mound, rising one hundred to two hundred feet above the desert, irregular in shape, which a person could walk around in an hour and a quarter. It is divided into two parts by a stream which runs through it. On the eastern side is the Temple of Bel with all its surroundings, the residences of the priests and the temple library. On the western side the people lived. These ancient cities were destroyed by rebellions and conquests, and rebuilt again, and one civilization followed another, and all have been covered up by the accumulations of ages. By methodical excavation each of these civilizations is reached and studied, and about thirty-three feet below the desert the remains of a high civilization are found.

The excavations are carried on by a force of about four hundred native workmen, superintended in gangs of about thirty men each by some of the old experienced Arabs who have been with former expeditions. Great care is taken to prevent the breakage of the tablets, which being of unbaked clay and lying in the moist earth become almost indistinguishable from it.

Dr. Hilprecht's idea, formed in previous years, was that at Nippur there existed a very early civilization, preceding anything of which there was any knowledge. A fair conception of former results was that the civilization ran back 3,000 years B.C. Fragments of vases found there enabled him to frame a scaffolding of a historical period antedating that. His plan during the last year was to discover how far into the past this civilization did extend in all the different parts of Nippur.

He began first in the eastern and southern limits of the city, and topographical maps were prepared by the architects. The outlines of the city were clearly pictured, and the trenches made by excavation. They succeeded in finding the great eastern gate of Nippur, which dates from the early part of the fifth millennium B.C. It was twenty feet below the desert, constructed of baked bricks laid in bitumen. The bricks were flat on one side and convex on the other, which peculiar form was used by the earliest builders in Babylonia. The men who built those bricks used the same as were used in the tower of Babel.

By digging down the peculiar system of fortification of that period was discovered. The walls were fifty feet thick at the base and sloped up on each side. The quick-eyed Arabs would point out where the lines came of the walls built upon them by later civilizations. The exact limits of the city proper were determined, and a street was outlined.

At the foot of the wall the weapons used by the oldest inhabitants were found. Having no metals, and there being no stones, even the smallest, they made baked clay balls of different sizes, from marbles to much larger sizes.

After 3000 years B.C. the temples are characterized by a stage-tower, above which is an altar to the rising sun. The question that arose was whether this was a Semitic indication or was it the characteristic form of a Babylonian temple or of the Sumerian races? On former expeditions Dr. Hilprecht came to the conclusion that the stage-tower did not exist in earlier days; but from the knowledge gained in the present expedition, after digging deep trenches into the center of that mound, that the stage-tower existed millenniums before there was a temple at Nippur.

He traced it in the walls of the temple ten or fifteen feet into the solid mass. He found it in five or six other spots. While digging for the walls he came across a tremendous building, entirely below the desert. It was over six hundred feet long on the front. There were ninety feet of rubbish on top of it. It had at least two stories. The windows were little holes, not for light, but for air. The houses were used for sleeping purposes, and business was transacted in the open air From the indications and the objects found, the playthings for children, etc., he believed the building could not be later than 4000 years B.C. Tradition follows after this that the old power of Nippur faded somewhat. From the condition of the walls it appears that the materials were taken for building purposes by later generations.

Dr. Hilprecht said that while he personally regarded the discovery of this oldest building as the chief and most important result of the expedition, perhaps others would regard the discovery of the great Temple Library at Nippur, the oldest library in Babylonia, as more important. He said that personally he had never had a doubt since he first saw Nippur, twelve years ago, when he examined the little fragments on the surface, that in that group of mounds the Temple Library would be found. There was no absolute proof, but only a private conviction. There was found a great library of tablets, arranged on shelves. They were found in the western center of the southern mound of the so-called temple. When he began the excavation he found a large number of remains on ledges about two feet wide, a little raised from the ground, of unbaked clay. They were arranged in rows, hundreds and thousands of tablets. It was a glorious sight. The tablets had suffered from the moist earth, and had to be dried and carefully handled. They had also been crushed by the falling buildings which had been burned. The fact was established by what was inscribed upon them that there was a library and archives of some kind. He found that the tablets contained grammatical sentences, written half a dozen times, as by a pupil practising upon them. Then there were lists of words for chairs, stools and other articles; lists of words of animals, birds or plants. There were the grammatical and arithmetical and astronomical literature of the Babylonians. In addition to these were lists of the kings of dynasties following each other, and the years of their reign, and what the king did each year. There were large numbers of astronomical, astrological and mythological tablets, and beautiful hymns, as well as a large number of historical tablets.

To make quite sure it was a temple library, there were found tablets which showed how many robes, how many garments, the god Bel had on such and such a day; how many temples there were beside the chief temple; what their revenues were, etc. Therefore, there was not the slightest doubt that the explorers actually stood in that early temple library known only by copies found in the Royal Library of Nineveh about 600 years B.C., and this library was a ruin at the time of Abraham. There was no tablet in it later than 2200 years B.C.

Thousands of tombs were excavated and examined. Most of them were of a date 500 to 600 B.C. There were others up to 2000 B.C. But Dr. Hilprecht found one tomb that he was certain belonged to the fifth millennium B.C. It was found far below the lowest trench of the temple. The burial was long before the days of Solomon. Many objects of gold and silver were found in connection with it.

Speaking of the relations of the expedition to those of other nations, Dr. Hilprecht said that Dr. Kaldewey of the German expedition recognized the importance of the American results, and the necessity of keeping Germany at the front had voted an appropriation of sixty-seven thousand marks per annum for a methodical exploration of Babylon itself. A second expedition was in course of formation, for which, at the request of the German government, Dr. Hilprecht placed his experience at its disposal. The Emperor himself guaranteed twenty thousand marks, and Dr. Koch, the well-known bacteriologist, was also interested in the expedition.

Dr. Hilprecht spoke of the cordial relations he had established with the Sultan of Turkey, and the fact of his connection with the Imperial Turkish Museum as director. The advantages which the American expeditions enjoy over those of any other nation in consequence of this are of the greatest value, and cannot be overestimated. He said he had made it a point to keep on the most friendly terms with all the other expeditions, and had freely given them any information he had.

As to the length of time required to make a complete exploration of the ruins Dr. Hilprecht said that the government part of the temple might be done in the next ten years. To explore the enormous treasures it contains a hundred years would be little enough. The longer he continued his explorations the more those enormous excavations made by him and the German and other explorers looked like mouse-holes in the ground when compared with the immensity of the place.

## OLD TIMES AND NEW

"No times like the old times!' We sing it night an' day;
But the new times—by the grace o' God—are happy on the way!
There's still the same bright sunshine—the stars are bright above,
And all the world is blossoming with lilies white of Love!

"No times like the old times!' That's jest the way we sing!
But don't we reap in harvest-fields the promise of the spring?
Are not the rivers rippling the same glad way to sea,
While the winds that wave the branches blow blossoms far and free?

"No times like the old times!" But these are still the times
When Love weaves all earth's roses in the music of glad rimes!
And all the birds are singing in the splendor of the light:
And all the bells are ringing, and all the world is bright!

—Atlanta Constitution.

## THE MISSISSIPPI RIVER

The Mississippi River, twenty-five hundred and fifty miles in length, is in charge of a government commission charged with making a detailed survey of its whole length; with topographical surveys of all natural and artificial features within a mile of the river-bank; with surveys and gagings of the channels; with the placing of permanent monuments every three miles along its course, and with all projects for regulating and deepening the channel. The sources of the river is at Itasca Lake, where the state of Minnesota has set apart a reservation of thirty-five square miles. The river leaves its source with a width of thirty feet and a depth of five feet, fifteen hundred and sixty feet above sea-level. Commercial navigation reaches to within twenty-five miles of the lake. At sixty miles from the source the government has constructed reservoirs holding ninety-three billion seven hundred and forty-six million cubic feet of water for the water supply, and of maintaining a navigable depth in the channel. Steamboat navigation begins at the mouth of the Minnesota River (not far below Minneapolis) five hundred and forty-eight miles from the source, six hundred and ninety feet above the sea. Lightbouses and landmarks are provided along the entire length, and every aid to navigation is furnished. Forty years ago pilots leaving Lake Pepin in a fog waited till they heard the bark of the only dog in the region and then steered northnortheast from the bark.

Bars are dredged when necessary, and the banks are protected by woven mattresses of boughs. The extreme range between high and low water at St. Louis amounts to no less than thirty-seven feet. At this point the river-bed falls six inches to the mile. Between Arkansas and Greenville the distance along the river is forty miles, while the airline is but fifteen miles. One of the greatest difficulties of the work is due to driftwood and to the snags and sawyers. These are removed by specially constructed snag-boats that patrol the river. The powerful dredgers are worked by centrifugal pumps, which can raise forty thousand cubic yards of material an hour. The delta is five hundred miles long, thirty to forty miles in width and covers an area of four hundred square miles. Three hundred and sixty-two million tons of material are annually carried by the stream into the Gulf of Mexico and there deposited. Some idea of the work done by a great river may be had by reckoning the freight charges on the transport of a mass of material like this. The material carried by the Mississippi annually would cost more than a billion of dollars to transport at the rate of a twentieth of a cent a ton a mile. These and many other items are to be found in the recently published report of the Mississippi River Commission to the Paris Congress of Navigation.—New York Sun.

## THROWING LIGHT ON THE TRUSTS

There is a mistaken idea that the men who direct great corporations are continually engaged in a vast amount of detail business. This is not the case. Modern business has made the position of the trust leader one requiring not only brains, but brains of the highest order. It may be that the president of a trust does not perform an official act once a day. It may be that his work is confined to initialing the papers that his subordinate heads of departments submit to him, but the fact remains that he is still the brains of the concern, and that if he signs papers without knowing their contents he does so because he knows thoroughly the men who submit them. It has been said with truth that the most successful men in these businesses are those who do nothing when things are going smoothly, and who do everything when they are going ill.

Instead of taking away from the freedom of action of the men who direct these concerns, modern conditions have added to their responsibility. The whole system of trust organization depends upon making each man responsible for the work which he directs. So long as he achieves satisfactory results he is not interfered with. It is said, for example, that the president of the Standard Oil trust never issued a positive order to his subordinates. Whether it is a matter of giving employment to a workman or carrying out a deal with the government, he merely suggests. If the subordinate prefers to substitute his own judgment in the matter he is permitted to do so, but he is held strictly responsible for the consequences.—Frank Leslie's Popular Monthly.


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### HOW COMPETITION WORKS

Old Susan Kellum owned a cow, and lived in Germantown;
In selling milk she found she must compete with Neighbor Brown;
'Twas almost like starvation for herself and little Dick.
One day her boy came running in and said, "Brown's cow is sick."
Then quickly came a twinkle in old Susan Kellum's eye;
It seemed she wouldn't worry though her neighbor's cow should die.

Brown's customers began to come to buy her milk and cream;
She sold a pint to Dr. Smith, a quart to Lawyer Beam;
And Brown himself came over then to buy a quart or so;
'Twas then that Susan tried her best strong sympathy to show,
But she couldn't hide the twinkle in the corner of her eye;
'Twas plain she wouldn't dress in black though Brown's old cow should die.

She sold new milk, skimmed milk and cream, sold all the cow would give;
And little Dick and Susan Kellum knew then just how to live.
A box must hold two sacks of flour, the shed a ton of coal;
Some apples in a coffee-sack, potatoes in a hole;
And Susan had a twinkle in the corner of her eye;
It plainer grew when Brown had hung his cowhide out to dry.

So when our farmers have a crop while Russia suffers drought,
Or when a teacher gets a school by shoving some one out,
Or when a workman gets a job with a dozen standing by,
Oh, this world is full of twinkle; have you tried to find the why?
There are many twinkles twinkled by those who have the pie,
Like the twinkles Susan twinkled in the corner of her eye.

But do not censure harshly, though many starve and die,
While others live in plenty with a twinkle in their eye;
But let us work together for a better time that's nigh,
When an honest man can live without a twinkle in his eye;
When there won't be twinkles twinkled by those who have the pie,
Like the twinkles Susan twinkled in the corner of her eye.

—Detroit Free Press.

### AS THEY CHOSE

WHILE waiting for the train the bride and bridegroom walked slowly up and down the platform.

"I don't know what this joking and guying may have been to you," he remarked, "but it's death to me. I never experienced such an ordeal."

"It's perfectly dreadfull" she answered; "I shall be so glad when we get away from everybody we know."

"They're actually impertinent," he went on. "Why, the very natives—"

At this unpropitious moment the wheezy old station-master walked up to them.

"Be you goin' to take this train?" he asked.

"It's none of your business!" retorted the bridegroom, indignantly, as he guided the bride up the platform, where they condoled with each other over the impertinence of the natives.

Onward came the train, its vapor curling from afar. It was the last to their destination that day—an express. Nearer, nearer it came at full speed, then in a moment it had whizzed past and was gone.

"Why in thunder didn't that train stop?" yelled the bridegroom.

"'Cos you said 'twarn't none of my bizness. I has to signal if that train's to stop."

And as the old station-master softly stroked his beard there was a wicked twinkle in his eye.—The London Spare Moments.

### HER THOUGHTFULNESS

The Protestant Bishop of Norwich, England, tells a rather good story against himself. He was walking one day through a pleasant suburb of the city, when his thoughts were interrupted by a pleading voice saying:

"Oh, please, sir, will you open this gate for me?"

Looking down, the Bishop saw a little girl of about eight, with a cherubic face framed in sunny curls, and he hastened to comply with the request. He held back the gate for the little maiden to pass through, and when she thanked him with a smile he asked if she was not big enough to open the garden gate herself.

"Oh, yes, sir," she replied, sweetly; "but you see the paint is wet, and I should have dirtied my hands."—The Pilot.

### SO FRIENDLY

After they had kissed each other, and each had disposed of a chocolate to show that there was no ill-feeling between them, the blonde said:

"So Mabel is married?"

"So I've heard," returned the brunette.

"Nice girl," ventured the blonde.

"Oh, yes," returned the brunette.

"I wouldn't say a word against her for the world."

"Neither would I. How do you suppose she ever got him?"

"I'm sure I don't know. Do you?"

"No; I would give anything to know."

"So would I. It certainly wasn't her beauty."

"Oh, no."

"Or her cleverness."

"The idea is absurd."

"I can't understand it at all. They say she was married by the registrar first, and afterward at the church."

"I shouldn't wonder; she naturally wanted to make awfully sure of him."

"Of course; it is the only way she could keep him. But I am glad she has caught some one. Mabel is a dear girl, and it would be cruel to say anything against her."

"Indeed it would; I wouldn't do it for the world!"

"Neither would I."—New York Press.

### WELL MET

It is told of ex-President Rutherford B. Hayes that while attending Kenyon College he was in the habit of taking daily walks into the country. These trips were shared by two intimate companions who were of a fun-loving disposition, which frequently got them into trouble.

On one occasion they more than met their match at repartee in an old farmer whom they met on the highway. The long white beard of the farmer gave him a patriarchal appearance, and while he was approaching the students they arranged to give him a "jollying," which eventually terminated in the discomfiture of the youths.

One of them doffed his hat with great reverence and respect as he said, "Good-morning, Father Abraham!"

The second saluted the old farmer, and said, "Good-morning, Father Isaac!"

Mr. Hayes, not to be outdone in affability and politeness, extended his hand as he said, "Good-morning, Father Jacob!"

Ignoring the outstretched hand of Mr. Hayes, the old farmer replied, "Gentlemen, you are mistaken in the man. I am neither Abraham, Isaac nor Jacob, but Saul, the son of Kish, who was sent out to seek his father's asses, and lo! I have found them."—Boston Herald.

### THE SILENT LETTER

The beauties of the cockney expression of the letter "h" is illustrated by the experience of a pastor, as related by himself in "Our Blue Monday Club:"

"When pastor of a church in one of our mining towns where there was a large number of Cornish miners I was called upon to baptize an infant at the close of our Sunday-school session one afternoon. That there might be no misunderstanding I carefully inquired the name of the child, and was assured that it was Anna Bell. Thus fortified, when the subject for baptism was presented I proceeded with all confidence to perform the ceremony. When I said, 'Name this child,' the father replied, quite clearly, 'Anna Bell,' and everything passed off smoothly. But after dismissal an American neighbor came to me and inquired why I used the pronouns she and her in baptizing that child, and informed me it was a boy. 'A boy!' I gasped; 'impossible! Its name was Anna Bell!' 'Oh, no, it wasn't; it was Hannibal.' That fatal 'H' had betrayed me."

### A MODERN MOTHER'S DIARY

"To-night Clifford has said, 'Mama, are stars holes in the sky to let the rain through?' I cannot sleep, such is my agitation. Clifford is scarcely five years old, whereas, according to the best pedagogical authorities, Martin Luther did not ask this question until he was seven, and Alexander the Great, in all probability, not until he was nine. I know not what to think. One moment I feel assured that Clifford is evincing an unaffected humor, only in the next moment to be overwhelmed by the suspicion that he is bidding for newspaper notoriety merely."—Detroit Journal.

### HE STOOD UP FOR HER

Mrs. Crimsonbeak—"Did you ever know a man to stand up for anybody's mother-in-law?"

Mr. Crimsonbeak—"Oh, yes; I think so. I stood up for one in a street-car to-day."

Mrs. Crimsonbeak—"Gave her your seat, did you?"

Mr. Crimsonbeak—"That's what I did."

Mrs. Crimsonbeak—"What made you think she was somebody's mother-in-law?"

Mr. Crimsonbeak—"Because she never thanked me!"—Yonkers Statesman.

### TWO KNIGHTS

It was evident in his swagger that he was a scion of the British aristocracy, and the most casual observer could not have failed to note that he was a stranger to the city. He touched a well-dressed, auburn-haired young man who was lolling in front of a Broadway hotel on the shoulder.

"Pardon me, me dear man, but could I trouble you for a match?" After lighting his cigar he continued, "Bah Jove, this is a remarkable city. This is me first visit to New York, d'ye know? I'm a deuced stranger, but on the other side I'm a person of importance. I am Sir Francis Daffy, Knight of the Garter, Knight of the Bath, Knight of the Double Eagle, Knight of the Golden Fleece, Knight of the Iron Cross. D'ye mind telling me your name, me dear man?"

Replied he of the auburn hair, in a deep, rich brogue:

"Me name is Michael Murphy, night before last, night before that, last night, to-night, and every damn night—Michael Murphy."—New York Evening Sun.

### A GALLANT JUDGE

In a case before a Paris court, in which a popular actress has had to appear as a witness, the judge seems to have shown considerable diffidence about asking the lady, as he was in duty bound to do, what was her age. Evidently he considered that such a question put to such a witness would be a direct incitement to perjury.

The way in which he got out of the difficulty was ingenious, although decidedly irregular. He asked her her age before she had been sworn.

"How old are you, madam?" he said.

After a little hesitation the lady owned to being twenty-nine years of age.

"And now that you have told the court your age," continued the gallant judge, "you swear to tell the truth, the whole truth and nothing but the truth."—Kansas City Globe.

### HE FAILED

He had been trying all evening to make a good impression. He had told all his humorous stories, and had given one impassioned speech from "Cyrano," but was still unconscious. Thick-skinned, he failed to perceive all her efforts to get rid of him. Finally there was a deep silence. Fidgeting, he grew nervous and cast about for something to say.

"Do you wear that sort of collar as a rule?"

"No," the haughty maid replied, frigidly; "as a collar!"

Then he fled.—New York Times.

### GUILTY CONSCIENCE

Little Alice is of a restless, uneasy disposition, often in mischief, which calls for her mother's reproof. Alice's parents attend the Episcopal church, and a few Sundays ago she was taken with them to the service. That night, after being tucked into bed, she said, "Mama, I know something they said in church to-day."

The mother, wondering what the little tot had in her mind, said, "What was it, dear?"

Alice answered, "They kept saying, 'Incline our hearts to keep still.'"—Leslie's Weekly.

### CHEAPER MEAT

"No, I can make you no contribution; I don't believe in sending out foreign missionaries."

"But the Scriptures command us to feed the hungry."

The man of wealth shrugged his shoulders. "Well, I'd feed them something cheaper than missionaries," he rejoined, with the brusquerie that characterizes his class.—What to Eat.

### CALLED THE TURN

Mrs. Bilkins (sweetly)—"Do have another piece of cake, Cousin John."

Cousin John—"Why, really, I've already had two; but it's so good I believe I will have another."

Little Johnnie (excitedly)—"Ma's a winner! Ma's a winner! She said she knew you'd make a pig of yourself!"—Brooklyn Life.

### OF COURSE

"She talked to him just to let him know she wasn't afraid of old bachelors."

"Yes?"

"And he talked to her just to let her know that he wasn't afraid of widows."

"Well?"

"Oh, they're married now."—Chicago Record.

### A USELESS ADJUNCT

"Louise, what has become of your French poodle?"

"Why, Harry made the dealer take him back. He didn't understand a word of our French."—Detroit Free Press.

### WHAT BELGIANS ARE NOTED FOR

Teacher—"What are the Belgians noted for, Willie?"

Willie—"Hares and blocks, ma'am."—Yonkers Statesman.


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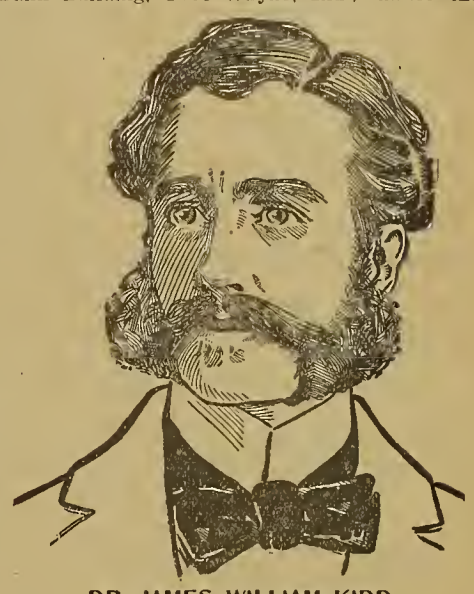

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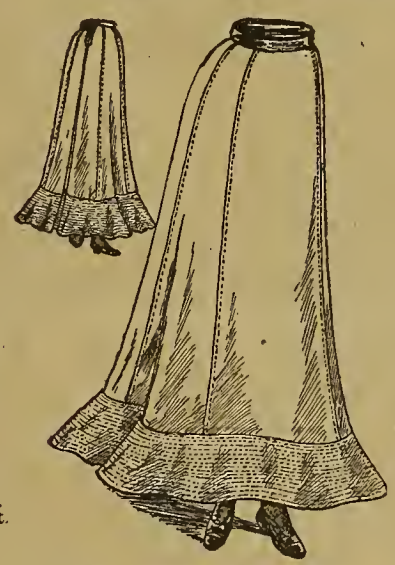

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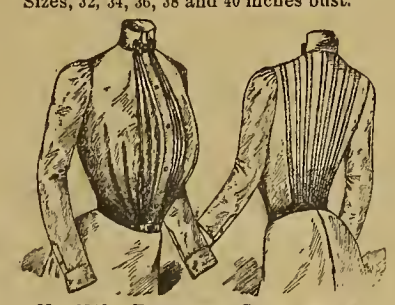

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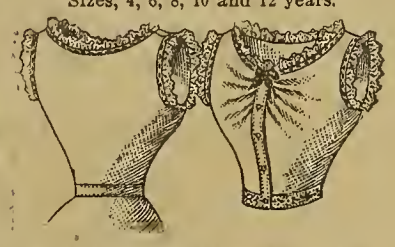

No. 3752.—BOYS' BLOUSE. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.



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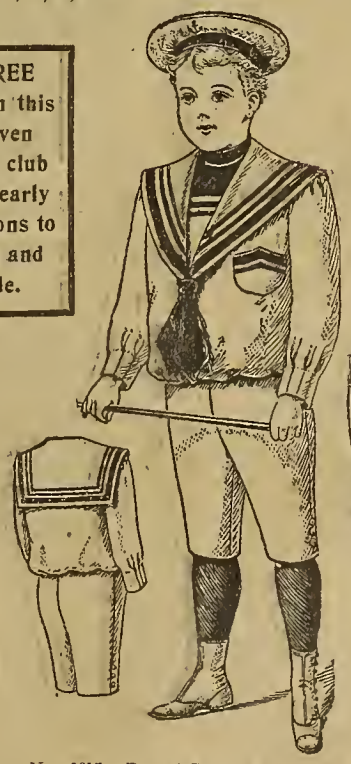

No. 3617.—BOYS' BLOUSE SUIT. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.

No. 3660.—BOYS' RUSSIAN BLOUSE SUIT. 10 cents. Sizes, 2, 4 and 6 years.

## FARM SELECTIONS

### SILAGE

THE silo is not only useful for storing feed for winter use with dairy-cows, but is proving most helpful for summer use. We all know how in the West pastures are quite sure to dry up at some time during the summer, and when such conditions prevail, that milk is scarce and high-priced. It is to get these high prices for milk that the silo comes actively into play. With abundance of silage for summer use the cows can be fed in darkened stables, where the flies are kept away from them, and with an abundance of such feed and a liberal supply of grain they can be made to produce fully as much milk as on the best of pastures.

The steer-feeder has usually looked askance at the silo. Perhaps this was because he thought that since silage was good for dairy-cows it probably was a poor feed for steers. The advantages of silage for steer-feeding are many. In the first place, it is a succulent food and keeps the body of the animal, whether growing or fattening, in a sappy, healthy condition. Silage takes the place of roots with either the dairy-cow or fattening steer. A ton of silage will go as far as a ton of roots for feeding either steers or cows, and will cost about half as much to produce. The stockman who has all of the machinery and knowledge to grow a great corn crop will usually shrink from attempting to grow a root crop, because of the labor and trouble involved. He knows roots are a good thing, but he does not care to produce them. He can get the same results by substituting silage for roots. Growing cattle fed on silage are kept in a healthy condition by the use of such feed in the winter-time, and the change when going onto grass from silage is far less violent than when changing from dry hay or corn-stalks to pasture. —W. A. Henry, in the Breeder's Gazette.

### CATALOGUES RECEIVED

Deering Harvester Co., Chicago. Descriptive circular of the Deering corn husker and shredder.

Joseph Dick Agricultural Works, Canton, Ohio. Illustrated circular of the Dick feed and ensilage cutting machinery.

George B. Galbraith, Fairbury, Neb. Nursery catalogue of forest, fruit and shade trees, grapevines, small fruits, etc.

The Aermotor Company, Chicago. Handsomely illustrated booklet telling "What a Buyer Should Know About Windmills."

Kansas City Hay Press Co., Kansas City, Mo. Illustrated catalogue of the Lightning Balanced Engine for gas or gasolene.

The Tiffin Wagon Co., Tiffin, Ohio. Illustrated catalogue of farm-wagons, corn-shellers, cider-mills, brick-machinery, etc.

Rosenthal Husker Co., Milwaukee, Wis. "Rosenthal Huskings," a little paper telling all about the Rosenthal Cyclone corn-husker.

A. D. McNair, Southern Pines, N. C. "Experiments with Fertilizers" at the farm of the North Carolina State Horticultural Society.

Cotta Nursery and Orchard Co., Freeport, Ill. Price list of standard fruit and ornamental trees, small fruits, vines, shrubs, bulbs, etc.

George H. Stahl, Quincy, Ill. "Poultry-raising and Artificial Incubation." A condensed work of practical information. Price 25 cents.

F. Barteldes & Co., Lawrence, Kan. Descriptive catalogue of garden, field and flower seeds, nursery stock, fertilizers, garden implements, etc.

McCormick Harvesting Machine Co., Chicago, Ill. Illustrated catalogue of the McCormick corn-binder and the McCormick husker and shredder.

The Robinson-Merrill Pottery Co., Akron, Ohio. Illustrated circular of stoneware poultry-fountains, pigeon-nests, rabbit feeders and drinkers, etc.

The Lowe Brother Co., Dayton, Ohio. Illustrated pamphlet, "Attractive Homes and How to Make Them." Practical suggestions for lawn and house.

Keystone Driller Co., Beaver Falls, Pa. Illustrated circular describing the latest improved drilling machinery for making artesian wells, gas and oil wells, etc.

The De Laval Separator Co., 74 Cortlandt Street, New York. Illustrated pamphlet—"A Live Question with Dairy-farmers"—and descriptive catalogues of improved twentieth-century cream-separators for farm and factory.

Up-to-Date Manufacturing Co., Terre Haute, Ind. Descriptive catalogue of ornamental and farm steel fencing, office railing, window and tree guards, ornamental brass and iron work, wire, wire-working machinery, etc.

U. S. Butter Extractor Co., Bloomfield, N. J. Catalogue of the Empire cream-separators making common-sense suggestions as to the benefit to be derived through the use of a hand-power cream-separator and every owner of a cow.

Wells W. Miller, Secretary Ohio State Board of Agriculture, Columbus, Ohio. The 1901 premium list, rules and regulations of the Ohio Agricultural and Industrial Exposition, to be held at Columbus, two weeks, August 26th to September 7th.


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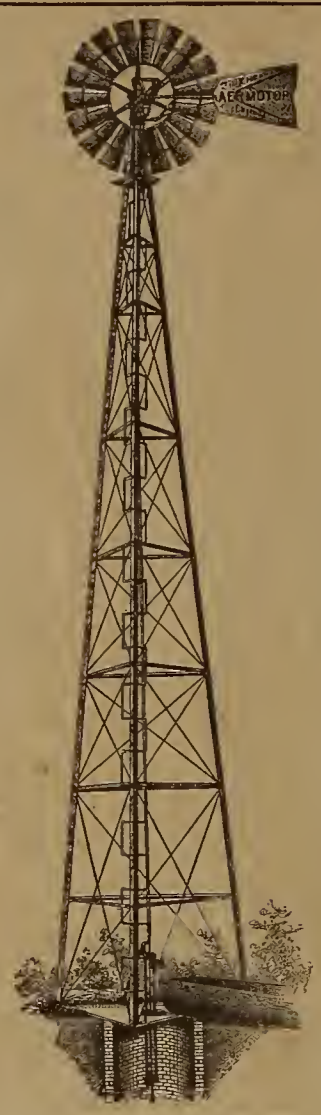


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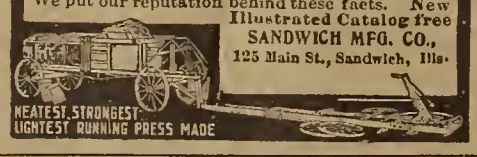

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# In the New Golconda of Oil

BY HENRY EDWARDS

WE WERE standing in the midst of the newly discovered Beaumont oil-field—a man interested in oil properties and I. Before, behind and at either side of us stretched away the prairie, gray with dust, and here and there on it stood nearly one hundred stiff-legged derricks, in an arrangement which immediately suggested that they had wandered about blindly one night, and had settled down, with braced feet wide apart, just when weariness had made an end to their wooden striding.

"Three months ago this land was worth from ten to fifteen dollars an acre," the oilman was saying.

I concealed my surprise that any one had been found willing to pay ten dollars for an acre of this dust-covered land, and he went on.

"Now"—he paused for emphasis—"now there's some of this same land unimproved, no wells on it, that can't be bought for one hundred thousand an acre."

"You don't say!" I exclaimed.

He smiled a superior smile, like that which a showman turns upon a gaping crowd, already dumfounded by his two-headed calf as he leads them on to his greater wonder, a mermaid caught by his own hands. "Just the beginning of things," he said, with a wave of his hand. "Look what the oil-lands of Pennsylvania, California and Russia are worth, and they're not nearly so productive as these. An acre will soon be worth a million."

I steadied myself somewhat. "How much territory is included in this oil region?"

"The limits of the region haven't been determined yet. Several counties, anyhow. Possibly half of Texas."

My mind, always ready with a demand for exact values, began of its own accord to calculate how much half of Texas would be worth at a million dollars an acre. Millions of acres at a million an acre! I saw a row of a dozen ciphers on my mind's slate preceded by two or three vague figures, and I stopped, dazed.

This is the way they see things in Beaumont since the great Lucas gusher was struck there on January tenth of the present year. The most favorably located lands—cheap farm-lands they were—are worth from a thousand to ten thousand times what they were a few months ago, and more enthusiastic persons declare that the next few months will work still further problems in multiplication, with the present land values for the multiplicand. They seem on very intimate terms with large sums, these men of Beaumont, and they speak with an easy familiarity of hundreds of thousands and millions that seems absolutely sacrilegious to the man who has to hesitate between a tip to his waiter and an after-dinner cigar. Not that they have the millions or the hundreds of thousands yet, but they see them ahead, when the land has been fully developed, with such clearness that their visionary dollars have the reality of bank-notes in hand.

The confidence of these promoters, officers and stock-holders of oil companies, and of the farmers, landowners and speculators, is not without foundation, for all who have read their newspapers know that the strike of oil at Beaumont is the greatest that has ever been made. At the time this article was written the oil output of the Beaumont field was already greater than the total output of all the other wells in the United States, and greater than the total output of all the wells of Russia. And the present production of the Beaumont field is doubtless only a fractional part of what it will be made to yield; for, as an oilman said to me, they are only at the beginning of things in Beaumont, and the limits of the territory under which the oil stratum extends can only be conjectured.

The reason that the Beaumont oil-field is so productive is that the wells so far struck are all "gushers"—that is, when turned loose they spout into the air a steady stream of oil from one hundred to two hundred feet high—whereas the other wells of the United States and the wells of Russia, save a very few, have to be pumped. The oil is caused to spout from these wells by the pressure of the gas collected in the same stratum. The flow of a single one of the Beaumont gushers has been estimated as high as seventy thousand barrels a day. The average output of the wells of the Eastern field in the United States is two barrels for the same period. When one bears this contrast in mind he can appreciate the volcanic enthusiasm of Beaumont, and the confident assertion of its people that the Beaumont field when fully developed will more than equal the output of the entire world seems to him a statement to be received with respect.

THE BURNING OF THE LUCAS OIL LAKE

At the beginning of the present year there were in Beaumont one oil enthusiast and one derrick. The enthusiast was A. F. Lucas, and the derrick was his property. He is a mining engineer by profession, and had prospected in Texas and southwestern Louisiana for two or three years before "indications" led him to erect his derrick south of Beaumont. People who saw his long-legged, pine-ribbed skeleton out on the prairie were apt to laugh at him as Texas' most recently developed fool. But he drilled on doggedly, and now the laugh is worn by Lucas. He did not succeed with his first well; he had to abandon it; but at the bottom of his second well there was oil—a compressed ocean of it. Very naturally he was expecting to strike a mild well of the usual sort—wells from which oil had to be coaxed through pumps—so was not prepared to control his wonderful strike. Immediately after his drill had passed into the oil stratum a stream of oil spouted up into the air for over two hundred feet. So great was the pressure of this geyser that ten days elapsed before it could be controlled and the flow stopped. The oil that escaped during this time flowed down into a shallow basin and formed a lake with an area of about ten acres and with a depth of from a few inches to four feet, and contained, it is estimated, five hundred thousand barrels of oil. This lake was fired by a spark from a railroad engine, and the lake of oil was transformed into a lake of flame, and for a number of days a mass of black smoke, heavy, suffocating and twisting, rose from the sheet of fire and was pushed by the wind across the prairie like a low-hung, earth-long thunder-cloud. One man not inaptly termed it "the devil's streamer." "The greatest in the world" is a phrase much used in Beaumont; and in speaking of this fire the sentence beginning "The lake of burning oil was" is always ended with it.

On the ninth of January Lucas was just a Texan fool, with a derrick above the surface and a hole beneath it. On the eleventh he was famous. In the newspapers of that morning the country read of the wonderful strike, and the oilmen of the United States and all the men of Texas and Louisiana could turn their tongues to nothing save the Lucas gusher. The distinction that belongs to the man who does some deed of daring or discovers a new field of wealth is falling to his lot. He is the "pioneer oilman," the "father of the Beaumont field," and in the colored quarter of the town there are a number of little "Lucases," about whose soap-box cradles play two-year-old and three-year-old "Hobsons" and "Deweys." And one man who knows more about golden opportunities and the seizing of them than he does about the art of a Schubert has glorified him in a song—"The Lucas March Song" it is called—and on its title-page it has a likeness of the oilman.

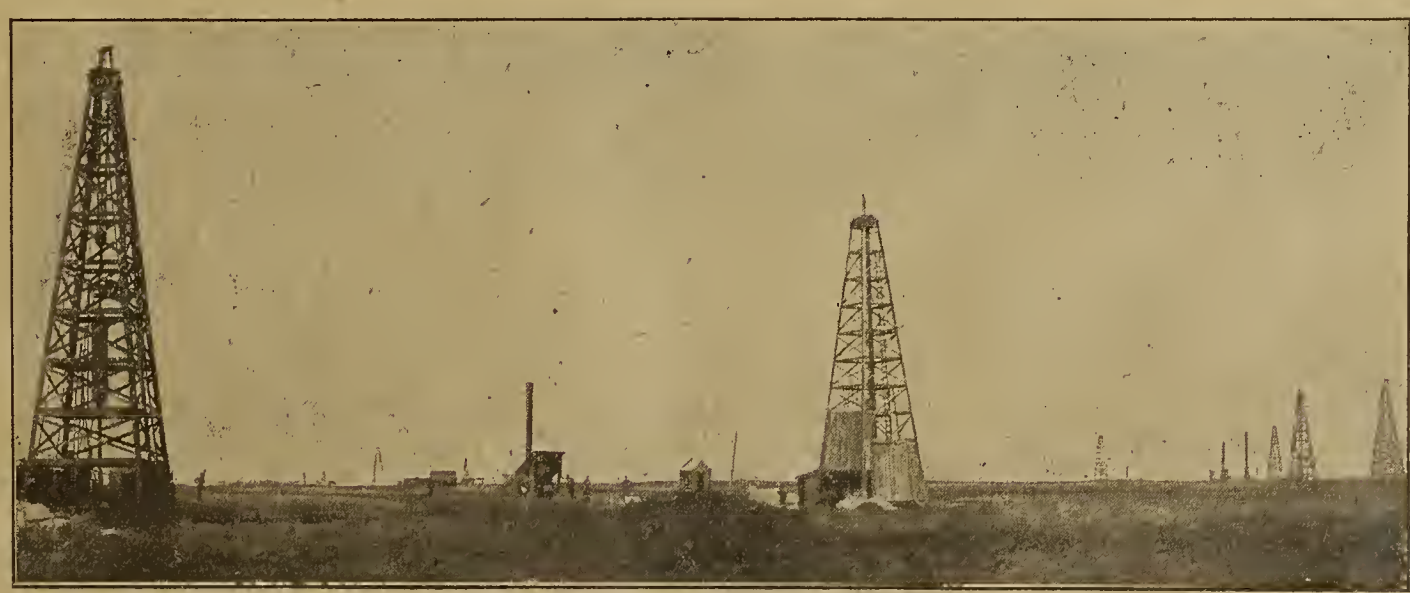
"Is it good?" I asked the proprietor of a music-store, whose windows were hung to their tops with copies of the song.

"It sells," was his brief reply.

It certainly does, as I afterward found out. It would be whistled in the streets if anybody in Beaumont had time for whistling.

Immediately after this strike oilmen and speculators began to drop off the train at Beaumont; and after the Beatty gusher was "brought in," on March 27th, the number of arrivals increased and the excitement grew more feverish. Land was purchased or leased, or options on it secured; companies were formed, as many as twenty in a day, capitalized at from one hundred thousand or so to five million dollars. Page, half-page and quarter-page

[CONCLUDED ON PAGE 5 OF THIS ISSUE]



VIEW OF A PORTION OF THE OIL-FIELD

# FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL & KIRKPATRICK CO.

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## WITH THE VANGUARD

IN A recent press interview Secretary Wilson said, "We have now reached an era in which the farmer of the Mississippi Valley is decidedly at the front. Never before was he so prosperous, and I am satisfied his prosperity is not ephemeral. Investigations made under my direction show that the corn-feeding farmer of the Mississippi Valley must for a long time to come bear the brunt of the burden of feeding the world its meat and meat products. This task, I assume, the farmer of the Mississippi is quite willing to undertake at fair prices.

"To begin with, our inquiries show that the world over the consumption of meat is increasing faster than the supply. While Argentina, Australia and South Africa are coming into the market with their supplies of beef and mutton, even their rapid development does not keep pace with the growing demand for meats. As the working people of the world rise to better conditions, earn higher wages and gain a larger share of the good things of life as a reward for their toil, they want and get a larger amount of meat for their tables. All over the world the great industrial development which is such a marked feature of the beginning of the twentieth century is bringing into existence a race of meat-eaters. Millions upon millions of people who have hitherto lived with very little meat, or none at all, are now eating it daily and crying for more.

"In the United States the quantities of meat consumed are something astonishing. In the good times that now prevail we are a nation of beefsteak-eaters. The best is none too good for the humblest. No other people in the world eat as much meat and as good meat as the people of these United States.

"Inquiries made by agents of the Department of Agriculture show conclusively that the Western ranges are giving out. The figures show that in Wyoming and Nevada only about one half as many meat-bearing animals are on the ranges as were there a few years ago. This is due to the fact that the grasses of that country will endure only about so much feeding and trampling. When they are eaten out close to the roots, as by sheep, or trampled by too close feeding they die out and never come back. To restore the ranges it is necessary to introduce a new grass, and this is a work which the department has taken up in earnest. North of Texas and all the way through to the Pacific coast these conditions generally prevail.

"Private property has of course been taken care of, but the great public ranges have been worked to death. Why, that splendid river, the Columbia, a mile wide and I do not know how deep, flows in many places through a veritable desert that runs down to within ten feet of the water. Sheep-herders have cared more for immediate results than for the conserving of the ranges, which is not surprising, considering that it is government land, and that many of the sheep-owners are Frenchmen and other foreigners who have come over here to make some money as quickly as possible and then get back home again. We have even had trouble keeping their flocks out of the government forest reservations.

"Now, it follows as surely as that two and two make four that if the ranges cannot keep pace with the demand for meats the farmers of the corn belt must come to the front. This they have been doing. They must keep it up.

"Not only should the prices of meats keep up, but corn should not go any lower. What this means to the Mississippi Valley every farmer knows. When a farmer can turn his corn into hogs and beef and sell them for five cents a pound he is getting at least fifty cents a bushel for his crop, and many think sixty cents would be a fair estimate. The farmer who can raise from fifty to eighty bushels of corn to the acre and dispose of it at such prices by feeding it out is not going to the poorhouse.

"There is no other industry in the United States that stands to-day on a surer and safer basis, with brighter prospects for the future, than that of farming and stock-raising in the great valley of the Mississippi.

"It is not alone with the corn, the hogs, the beef and the wheat that the Western farmer is doing well. Horses are high. Farmers are doing well raising horses for the market. There is every prospect that present high prices will continue. The horse has come back to his own. He is no longer a drug in the market. For a time the trolley and the bicycle ran him out, but he is now on top again.

"Every year London consumes one hundred and twenty-five thousand horses. It is an odd circumstance that just about one half of this supply comes from the United States. Last year we sent abroad no fewer than sixty-four thousand horses, and nearly all of them went straight to London. Nearly eight million dollars was the price paid for them, and practically all of that large sum went right into the pockets of the farmers of the Mississippi Valley."

COMMENTING on a new era of development in public roads the New York "Tribune" says:

"The great development of railways led to almost universal neglect of ordinary roads. It might have been thought that the object-lesson of cheap transit by rail would have taught people the folly of spending more to take products a few miles over bad roads to the railroad-station than it costs to send them by train to distant markets. But it did not. The idea that the wagon-road was an anachronism, and that it was beneath a modern nation to pay the attention to the highways which the Romans bestowed, seemed rather to prevail, and even in the most prosperous and thickly settled regions of the country the ordinary driving-roads have been left until the present day in a very disgraceful condition.

"Perhaps the greatest factor in bringing about a reform was the bicycle. The influence of the wheelmen in stirring up public sentiment and securing the passage of good-roads laws has been tremendous. Following the bicycle comes another vehicle which should exert an even more powerful influence. That is the automobile. Somehow or other people could get over almost any sort of road with a horse and carriage. The road might be uncomfortable and slow, and even somewhat dangerous, but it was endurable. The wheelman, if he could not get a whole road improved, was well content with a narrow path. If people wanted their horses to flounder through mud or stumble over stones it was no affair of his. The automobile-driver, however, wants a good, smooth wagon-road, and if automobiles are to have any wide popularity and usefulness outside of cities in the United States—as they have in Europe, where almost all country roads seem marvels of perfection in American eyes—the good-roads movement must be carried forward. Men will not buy thousand-dollar machines to have them shaken to pieces on rough roads or stalled in sand-beds. Just as the railroad turned attention from highways, the new vehicle which ought in time to be of universal use must turn attention to highways.

"With proper road improvements an enormous market for automobiles might be secured. City populations are tending countryward, and will go as far as they can with comfort. Where roads are adapted to automobiles the suburban area may be extended much further from railroad-stations and trolley lines than now, and large tracts of land can be made available for residence. Neither in city nor country will traffic forever be concentrated on railroad lines. More smooth streets will be demanded in the former, by which people can make their way in comfort with their own vehicles to and from their business. The development of good highways is as much a matter of public interest as the building of bridges and tunnels, and when the latter have been provided to meet the immediate needs of the greatest number it may be expected that with the rapid improvement in automobiles, making them even more than now practical vehicles for general business and travel, the demand will be irresistible for extensive street and road improvements."

IN AN interesting article—"The Revolution in Farming"—in "The World's Work" for July Prof. L. H. Bailey gives a sketch of the Cornell University College of Agriculture for the purpose of illustrating the kind of work done by agricultural colleges.

"Its purpose," says Prof. Bailey, "is to give the student a liberal education by the use of rural subjects. It is not a professional school. Yet it is interesting to note that as great a proportion of its students and graduates return to the farm as from the separate and special agricultural colleges. Recent investigations have shown that of all the former students and graduates eighty-seven per cent are now engaged in some kind of agricultural work; of the graduates alone eighty-five per cent are thus engaged; and of the winter-course students ninety-five per cent have returned to agricultural vocations. Its faculty believes, however, that farming can be aided quite as much by awakening public sentiment in favor of the farm as by training men to be actual farmers; for, after all, the farmer of the future is not to be a man by himself, but a man among men.

"Where do the students come from? Mostly from the farm. They come for a purpose. They are well-developed, well-bred young men who have had much practical contact with things. They are quick to discern what instruction is relevant. Most of them are students with imagination and of large hopes. They look at things broadly. They are frugal of both money and time. Most of those who take the special course expect to return to the farm.

"Do the students who return to the farm make successful farmers? Yes, if they have the native ability. It does not follow that because a man grades well in his class that he makes a good business man; but other things being equal, the better the class grade, the better the farmer. For myself I care less whether the student can improve his yields than that he improve his mind. Even though the college man raise no more wheat than his neighbor, he will have more satisfaction in raising it. He will know why he turns the clod; he will challenge the worm that burrows in the furrow; his eye will follow the field-mouse that scuds under the grass; he will see the wild fowl winging its way across the heaven. All these things will add to the meaning of life, and they are his. But the college man has the benefit of definite and relevant knowledge, and he should be able to apply it for the betterment of his farm. In fact, he does apply it. His pride is quickened. He knows that he is a marked man. His place shows it. With joy and enthusiasm he goes back to the farm, determined to improve every foot of its soil and every item of its detail. He works toward ideals. If education does not help the farmer, then it cannot be expected to help any other man."

## THE ON-LOOKER

WHEN I was a very young man college education consisted chiefly of severe mental training in mathematics, Greek and Latin. Chemistry, botany, logic and modern languages in small doses were thrown in as filling, giving an impression of a well-rounded whole, but the three daily grinds were substantially mathematics and ancient languages. Some institutions of learning, it is true, were providing courses of study loosely described as "scientific" or "philosophical," but the old-line colleges discountenanced such pandering to the desires of the masses. Mental culture was the goal of these educators; there was only one sure road known to them. Calculus, Horace, Homer! These were instruments whose appointment had a touch of the divine. The prostitution of education to mere bread-winning was sacrilege. Such was the thought on the old college campus.

Times have changed for the better. My training forbids any disrespect for the old classical course of the colleges, and no reasonable sum of money would buy the little profit I derived from it. There remains a predilection for such training when circumstances permit. But it cannot supply the needs of most boys to-day. It sent well-equipped students to schools of law, medicine and theology, but it could not meet the demands of a highly specialized, nervous, commercial age. It made scholarly men when employed faithfully, but they were not equipped for the work that counts for most in this generation.

We make many fine phrases about it, but the first practical duty of man is to earn a living in this world. The support of himself and of those dependent upon him is the first service that should be rendered to God and man. He must be prepared for this duty, and his education must be such that he is made reasonably sure of the development of capacity for its performance. The commercial spirit is so dominant that we esteem great financial success too highly, forgetting the higher objects of life; but bread-winning is the first consideration. If one is not able to support himself he lacks the foundation for the best service of his fellows. As the world's work becomes more and more intricate and specialized special training is needed by the individual to make a living sure, and that system of education is faulty for the individual that does not surely help him to self-support if he must earn his way through life.

Just so long as educational facilities were for the favored few, and a college education opened the way to position and power, six years' grind of dead languages was not amiss. Liberal culture was in it all. But now our young men must have training to win. Competition is sharp, every department of labor has intricate details to be mastered, and that education is best that fits boys and girls for their first duty—the support of themselves and their dependents. That one wins most surely who has liberal mental training, and therefore the special course of study for him should be as broad as is feasible, but special it must be in that it is fitting in a practical way for some kind of profitable work. It must lead up with directness to some kind of work which the world is ready to pay for.

In our rural schools most of the pupils go back to the farm. They spend much time in school studying subjects with which not five in one hundred will deal in their future lives, while they are left in ignorance of the soil, of plant life and of the insect world. It is an irrational scheme of education foisted upon the people by scholars whose sympathy is with the five boys who may be willing to acquire education for its cultural effects, rather than with the ninety-five who will never go to college, but will have a struggle to make an independent living for themselves.

The agricultural college is doing a good work, limited by our failure to appreciate the need of special school study for farming. There is a science—a fund of known facts—related to agriculture that can be gotten readily only by study under teachers in agricultural schools. When a young man proposes to be a farmer he does not thereby propose to forego all opportunities for mental culture, and the more schooling, the more breadth and ability to enjoy. But with this culture should come a knowledge of facts he will need in his work. O—L.

## ABOUT RURAL AFFAIRS

**Home and Lawn** A good many people have houses to live in, but they have no homes. I cannot imagine a home, in the full sense of the word, unless the house is surrounded by trees and shrubbery and lawn. It does not necessarily take acres to make a home. A nice, well-kept lawn in front of a comfortable house, and one or two shrubs in a city lot, will give to that lot an air of comfort, convenience, elegance and a homelike appearance. The lawn, however, is the chief feature, and seems to me to be absolutely indispensable. The first thing to do about it is to make it; and too much pains can hardly be taken in preparing the land so as to have a fine, smooth surface and a perfect grade. Plow and scrape, or move the soil with shovel and barrow, until this task is accomplished. The new home-maker may do this at odd spells, a little at a time, if he cannot use or employ horse-labor. Then with cultivator, rake, roller, etc., work at it until you have the desired soil surface. Possibly the soil may be quite weedy. A neighbor of mine in making a new lawn worked the surface over a number of times during a whole season for the very purpose of killing most of the weed-seeds contained in the soil near the surface, before finally sowing his grass-seed on it. This is surely a good plan, for weeds in a lawn are not ornamental and often hard to get out. Then comes the sowing. A dozen years ago I tested a large number of kinds of grasses and mixtures for lawn purposes. The grasses most commonly used, in mixtures or alone, are Kentucky blue-grass, redtop and white clover. I came to the conclusion that a good lawn may be produced by any mixture of these, and that blue-grass alone may often be not only the cheapest, but also the best. Samuel Parsons, Jr., gives in the "Cyclopedia of American Horticulture" the following directions how to make a lawn:

"1. The lawn should be carefully graded, either convex, level or concave, in such comparatively long, suave and graceful lines as will accord with the peculiar conformation of the ground. 2. Plow, harrow or spade and fork the soil of the lawn to a depth of two feet, if possible; keep removing the stone, and burn the gathered rubbish for several weeks, or so long as you can persuade yourself to do it, or pay any one else to do it, with the full assurance that no matter how much you do you will not be likely to destroy all the weeds and win the very best possible results. 3. Enrich the soil by a covering of still richer mold. Next to this inefficiency are bone-dust, superphosphate of lime, nitrate of soda, and nitrogenous manures like ground flesh and bone mixed in proportion suited to the special soil, which may vary greatly in a distance of a few hundred yards. If artificial fertilizers are not available, then take cow manure, sheep manure, or, last of all, because it is the most productive of weeds, ordinary stable manure. These natural manures are, after all, the best, save for their weed-bearing qualities. They will need composting with several times their bulk of good soil, and evenly spreading and harrowing or raking in throughout the surface of the lawn. 4. For turfing the cleanest grass-seed that can be obtained at any price will be found the best in the end. The bulk of this seed should be Kentucky blue-grass or June-grass mixed with redtop, or herd's-grass, or the Rhode Island bent-grass. The advantage of using several kinds of grass is that the first-comers hold possession against incursions of weeds until the stronger but slower-growing Kentucky blue-grass gets complete roothold, when, in the struggle for life, the earlier growths of grass, being weaker, go to the wall and are crowded out of existence. How fine this blue-grass may become under favorable conditions it will be needless to point out to those who have seen the grass meadows of Kentucky. 5. On a quiet day the seed should be sown evenly over the lawn surface. The ground will then need careful raking with a fine-toothed iron rake, and rolling with an iron roller, the heavier the better. In very dry and windy weather it is hardly worth while to sow grass-seed."

**Composts** There is not much in the above account to which I could object except the matter of composting manures. I am in the habit of making composts for plant-bed soil to be used in hotbeds and on the greenhouse benches. Nothing seems to fill the bill so well for such purposes as soil made by piling up alternate layers of sods (cut from a rich old pasture if possible) and strong manure, the whole to be spaded or forked over repeatedly in the course of a season, and finally mixed with some sand, unless the sods contained a good proportion of that already. But what is the use of hauling a lot of soil to mix with stable manure when the resulting compost is to be used in open ground anyway? I save all that trouble by composting the clear manure, and then applying the compost evenly over the whole surface and mixing it well with that soil. That answers the purpose exactly as well, and saves much useless labor.

**Horticulture at the Pan-American** Frederic W. Taylor, who is probably not unknown to a large portion of our readers, having been connected more or less with the agricultural interests of the country, has charge of the Department of Horticulture, Forestry and Food Products at the Buffalo show. As all roads lead to Buffalo this year our readers will be interested in the man who has so much to do with this important part of the show. His very features indicate the possession of superior intelligence and energy.

FREDERIC W. TAYLOR

A circular letter to horticulturists reads:

"We have up no 'Keep off the grass' signs, but desire every horticulturist who feels that there is likely to be material here which he wishes to use, that we are not only willing, but anxious that he avail himself of it. The immediate reason for writing this letter at this time is that a written request for information on the subject suggests that there may be a fear on the part of some that this department desires to be exclusive as to the use of such material.

"The use of hand-cameras, using a plate not larger than four by five inches, is permitted upon the payment of only fifty cents a day, or one dollar and fifty cents a week, and larger plates will be made by the official photographer at reasonable rates.

"If there is any specific information which you desire at any time as to when certain fruits or plants are likely to be at their best for study I should be very glad to give any information in my power.

"Again assuring you of the wish of this Department to render every assistance possible, and that the latch-string will be hanging out with a good-sized knob at the end, making it easy to pull, I am

"Very cordially yours,

"F. W. TAYLOR."

**Quick Growth of Grasses** It was shown to me a few days ago in the agrostological exhibit made by the United States government on the grounds of the Pan-American that well-prepared and well-enriched ground can be covered with a green sward in a very short space of time. In strolling about the grounds one is apt to find interesting things in very unexpected places. Almost accidentally I came east of the magnificent United States Building, and only a few steps from it upon a lot of grass-plots, one kind of grass to a plot. Some of the grasses had only been sown eighteen days, and yet a few plots were completely covered with green growth already. Only a comparatively small number of visitors are attracted by this exhibit. To me it was decidedly interesting, and I shall watch it closely, and when the results are more apparent I shall take careful notes, and possibly draw some lessons from them for our readers. This exhibit is in charge of an employee of the Department of Agriculture, and this gentleman seems to be especially obliging and pleased to give to visitors full information about these tests and results. Every farmer who visits the Exposition, indeed, any one interested in lawn-making or stock-feeding, should not miss this exhibit.

**Fisheries Exhibit** One of the most attractive spots to the average visitor at the Pan-American is the fisheries exhibit in the United States Building, which, by the way, is filled from end to end with interesting and instructive things. On "heavy" days you will find a surging mass of humanity passing along in front of the glass tank containing salt and fresh water creatures—fish, crabs, lobsters, and the like. The exhibit does not seem to me to be as complete as I saw it in Chicago in 1893; but it is always highly interesting, nevertheless. If you wish to see it with comfort and at leisure, by all means go there in the morning before the crowds arrive, or on a dull day. When I remember what a fuss was made years ago about the German carp which the government imported, bred and distributed among the people I wondered why I could not even find a specimen or a tank of these fish in the exhibit. Is the United States government ashamed of them? It is true that the American people do not officially appreciate the carp any more. We have plenty of them in the Cayuga creek within a few rods of my house, and often catch or spear specimens weighing from ten to twenty pounds apiece. I notice that the average people around here are not at all averse to make use of these fish for the table. A few weeks ago one of the boys brought a few smaller specimens to the house, skinned them, and had them cooked. I do confess they were fully as palatable as bullheads, and these are appreciated by most people. But I have a dislike for the large carp—possibly because I have not yet learned how to cook them properly.

**Unfermented Grape-juice** I have often spoken a good word for the fresh juice of the grape as a most delicious and wholesome beverage. About fifteen years ago, when grape prices seemed to fall down below the profit-point, some shrewd people began to make and boom this "unfermented wine," and in several places in New York City this product was dealt out to thirsty people at five cents a glass. At that time I never passed one of these places without having my glass or two of Concord juice freshly pressed out under my eyes. Whether these places are now running or not I am not informed. But I still believe that we could grow grapes, or use a large portion of the crop now grown and often put on the market at prices which leave little margin of profit to the grower, for the purpose of making a palatable and health-giving beverage. I was pleased to find in the Horticultural Building at the Pan-American several exhibits of such grape products, and a chance to procure excellent fresh Concord juice, guaranteed to be free from salicylic acid or other preservatives, at five cents a glass. It is a New York State product, and the visitor who is thirsty and tired out when he comes to the Horticultural Building should not fail to go to this fountain of eternal youth. I was in that tired condition the other day, and after sipping two or three glasses of the refreshing juice continued my march through the grounds with a large equipment of new life and new strength. The grape-juice appeases hunger as well as thirst. If we wish to make our own grape-juice, however, we will have to experiment and learn exactly how. I believe the juice must be heated to one hundred and seventy degrees Fahrenheit, kept at that temperature for some time, and then sealed air-tight. That is the whole of it. Overheating must be guarded against, as it spoils the flavor. For canning purposes I shall this year treat my grapes as I told of having handled my currants; namely, squeezing the juice and pulp out of the fruit in a fruit-press, and rejecting seeds and skins, then putting up in cans in the ordinary way.

T. GREINER.

### A GOOD WHITEWASH

Slake one half bushel of freshly burned lime in boiling soft water, covering it during the process to keep in the steam; strain the liquid through a fine sieve, add two pounds of sulphate of zinc, one pound of salt and one pound of whiting previously dissolved, and then mix thoroughly to proper consistency with skimmed milk. Let the mixture stand a few days covered from dirt. When ready for use apply hot. If a tint is desired add the coloring matter used by painters in preparing paints.


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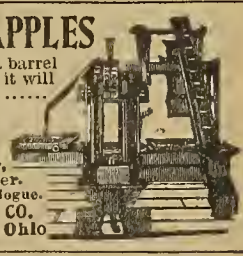

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# OUR FARM

## FARM THEORY AND PRACTICE

DROUGHT AFTER WET WEATHER.—Many of the Eastern states had excessively wet weather last spring, continuing into June. It delayed the planting of spring crops, and where the planting was finally done and cultivation was given there was the troublesome reflection that a wet season before wheat harvest is usually followed by a poor yield of plowed crops, because they seem unable to resist even moderate drought in July and August. There are several reasons for poor results after a very wet May and early summer if some dry weather follows, and probably the chief one is that the plant-roots have formed too near the surface of the ground. The location of roots is largely determined by the amount and position of the water in the soil. If excessive rainfall keeps the subsoil soaked, and keeps the surface soil moist to the top, plant-roots will make their growth too near the surface to stand any great amount of drought afterward.

THE CORRECTIVE.—Shallow tillage is usually advised for farm crops, because moisture in the soil is a big factor to be cared for; but in a very wet spring and early summer tillage is not to retain moisture, but to loosen the soil so that air can once more enter it, and especially to cut off the surface roots so that the plants will not depend upon them, but will make their chief root growth down in the soil that has been loosened, aired and made fit for growth of roots. This means that in a wet May cultivation should be close and deep around plants whenever the soil is dry enough to permit cultivation.

Too little attention has been given to the fact that the shallow culture of plants which is just right for the saving of soil-moisture is the reverse of that which is needed when the weather is excessively wet during the first few weeks of a plant's life. If some tillage can be given there is no reason that the soil and plant should be in such condition that it cannot stand drought about as well as it would after a dry spring. There is plenty of water below, and thorough, close and deep culture will make plants root down where the water can supply them in a drought that follows. The top soil is made porous and lively by such cultivation, and the worst effects of excessive rainfall are counteracted. Corn, potatoes and similar plants will stand a lot of root-pruning in wet weather, and the fewer surface-roots in a soil that is left packed, the safer for the plants. All this is contrary to the usual cultivation advised, simply because the conditions are unusual. Both kinds are rational, because both serve the ends for which they are used. In a dry season roots tend downward, and we till to hold moisture by stirring only the surface of the ground; in a wet season we till close and deep to make the roots form deep so that they will be ready for a drought later on in the season.

PRACTICE AND THEORY.—I have tried to state some of the reasons for deep, thorough tillage in a wet spring, but the best part of it is that the experience of many good farmers in the past has proved its value in helping plants to withstand drought. In a dry spring they root down, and we cultivate shallow to hold the moisture; but in a wet season we must make them root down, and we must admit air to the soil. Then follow with shallow tillage.

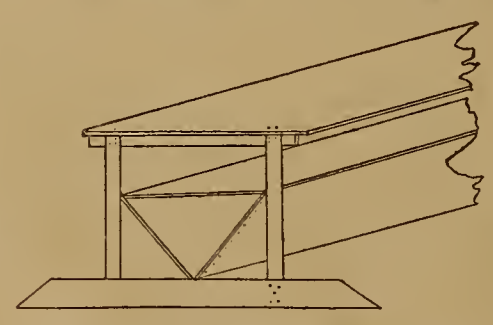
SOME STATION EXPERIMENTS.—I have been interested in a magazine article describing some station experiments to determine the location of plant-roots. It says the investigator "dug a trench two feet wide about a block of earth in which were growing some plants, the roots of which he desired to study. When the block stood out quite clearly alone he made a light wooden frame to fit around it, and covered this with common wire poultry-netting. This held the earth in place and allowed him to pierce it through with small wire rods, which were then fastened at both ends to the netting. When enough of these thin wire rods had been run through to hold up the roots nicely in case the earth was washed away he covered the top of the ground with a thin plaster-of-Paris paste, which soon dried, holding the plants he desired to examine firmly about the base." When the soil was washed out the location of the roots could be seen with much exactness. The roots of wheat were found to run vertically downward to a depth of several feet, and we can thus understand how this crop can mature a crop with little rain for several weeks, or even months, preceding harvest. The roots go down where the moisture is fairly abundant. Corn depends more upon lateral roots. "All the roots tended to keep near the surface so long as they could get moisture that way and were not crowded." In our farm experience we learn that in a good corn-soil a dry June will send the plant-root down just about right, and all we need watch is the surface to prevent a crust or any weed growth; but when the surface stays moist for weeks the roots do not go down deep enough for safety later in the season.

GROWING TURNIPS.—Many turnip "patches" are partial or entire failures because we disregard the laws governing the action of water in the soil. There is a quite common inclination to sow turnip-seed "just before it rains." If the rain comes and continues for days the seeding may be all right, otherwise it is quite apt to be a failure, except in moist garden-soil. The shower forms a crust that enables the water to escape rapidly, and within three days after the rain the germinating seed is incased in dry and compact earth. The time to sow small seeds in hot weather is after a rain. The seed-bed should have been made fine and solid, so that it will permit the rise of moisture from the subsoil, and then a rain solidifies and fills it with water. Just as soon as a weeder or light harrow can be used after the rain the surface should be stirred, to fine it and to check evaporation. If the seed is then sown and slightly harrowed in it will rest on the moist soil just below the blanket of loose soil on the surface. After the seeding I prefer a very light plank-drag to a harrow for covering, as it pulverizes the particles of soil that are forming into tiny clods as moisture leaves them. Under these conditions the seed will get moisture for germinating much more surely than when put into the ground just before a rain. DAVID.

## HOG-TROUGH

Yes, you have had the same experience that I used to have with the whole pen of hogs, little and big, generally to the undivided advantage of the bigger and biggest, crawling, climbing, rooting, squealing, a solid mess of well-packed pork, right into the swill-trough at feed-time, wallowing in and slopping out about all the swill that they do not succeed in gulping down themselves, leaving the little fellows to "suck the hind teat" with a vengeance, and to live on the hope of getting a taste next feed.

Recently, however, I played a practical joke on the hoggish hog that made a practice of getting lengthwise in the trough with all four feet, and afterward wallowing down for an after-dinner nap and sun-bath, by building some troughs after the plan of the illustration herewith. Now the runts and young hogs have an equal chance with the larger and older ones, providing, of



course, that the trough is long enough or there are enough troughs to accommodate them in a line abreast.

For the trough proper you can as well utilize the old ones as to build new. New ones may be made of one, one and one half or two inch lumber, as best suits convenience. Use two by four or two by six for the ground pieces at ends, rest the ends of trough on them (if very long an additional piece in center is advisable), then spike on uprights two by two or two by three, touching edges of trough for rigid support, and on this nail crosspieces, bracing if necessary. On these crosspieces lay a board, or boards, and nail fast. The upright pieces should be made long enough only to allow the larger hogs to get their heads between the board and the edge of the trough and reach the bottom. This prevents climbing on or into the trough and eliminates the crowding feature.

This style of trough also makes an excellent arrangement for watering poultry, and as a feed-trough prevents the fowls from getting in with their feet and mussing up and scratching out the feed. When properly placed, too, it furnishes a certain amount of shade for the water in the summer. The trough for either use is kept up out of mud usual about such a feeding-place, and preserves the wood from rotting.

R. M. W.

## SAVING THE CORN CROP

The introduction of successful corn-harvesters and husking and shredding machines has made a vast difference in the financial returns that the farmer in the Western states receives in his corn crop. Throughout the prairie states there has not been enough labor available on the farms to cut the corn crop by hand and husk it from the shock. Until recently the market price of corn, if only the ears be considered, has barely covered the cost of production, leaving little or no profit to the man who raises corn for the market, and often paying him poor wages for his time spent in growing and marketing the crop.

Of course, the farmer who feeds his corn into beef or pork has made good profits the past two or three years; but the fact remains that corn-growing in itself has not been profitable in the sense of giving the farmer anything more than wages for his labor.

The corn-binder and the husker and shredder do not compare with the grain-binder or other inventions as labor-saving machines. When the work of shocking after the binders, hauling in the corn and operating the husker and shredder is footed up it amounts to about as much as the cost of husking from the stalk in the field. The great value of these machines is not in saving labor, but in making the same amount of labor accomplish a great deal more. With these machines it is possible to save the fodder and convert it into a feed that is practically equal to hay in quality, and equal to a hay crop from the same acreage in quantity.

Every farmer understands that grass must be cut at just the right time to make hay of high quality. A delay of a few days in cutting means a large percentage of loss in nutritious elements of the grass, which, after a certain stage, seem to dry up into woody fiber that is indigestible and unpalatable to stock. It is not so generally understood, however, that the same law applies to corn fodder. When corn is cut at just the right stage of maturity the fodder is rich in nutritious matter, and when shredded makes the best of dry forage. If the crop is cut a little too soon there is a loss in the weight of the ears; but there is a stage when the ears have fully matured while the fodder has lost nothing except the elements that have passed into the ears in ripening. Beyond this stage there is a rapid deterioration in the quality and bulk of the fodder, both chemical and mechanical. The stalks dry up like grass that stands too long; and there is a further loss of a mechanical nature, the same as in hay that has stood too long, but even more pronounced, in the dropping of dried-up blades before cutting or during the harvesting and subsequent handling of the crop.

Perhaps the greatest advantage of the corn-binder is in the fact that with this machine the corn crop can be cut quickly at just the right time to secure the greatest feeding value. On average farms of say a hundred acres a man could probably cut all his grass with a scythe if he would buckle down to hard, back-breaking labor; but there would be no economy in it, because the loss in value of the grass by allowing it to stand too long would pay for a mower each season. When corn is cut by hand the work drags along in the same weary way, until there has been a proportionate loss in the value of the fodder.

Another advantage of the corn-harvester that must not be overlooked is that when the crop is put in shock quickly the farmer has time for fall plowing and other work in which time is valuable before winter sets in. The husking and shredding is a winter job. The corn should stand in shock a couple of weeks in good curing weather, or longer if there is much rain, before it is husked and shredded, and a few weeks longer does no harm. This brings the work into winter, when there is no other important work on the farm. The husker and shredder is thus a sort of employment agency, giving the farmer profitable work to do in winter when he would otherwise be idle.

Saving the fodder gives the farmer more than double the profit that he realizes when it is allowed to dry up in the field and go to waste. The ear crop covers the cost of production. The profit, without counting the fodder, has been very small in recent years, but may be a little better in the future with higher prices. But when the fodder is saved and shredded it is practically all profit. It has cost nothing to produce it; the only work and expense is in saving and shredding it. Many dairy-farmers have found shredded fodder so satisfactory that they do not raise hay. They find that they can get the equivalent of a crop of hay out of a corn-field, and have the grain besides.

The corn-binder and the husker and shredder are therefore the most important inventions that have been put on the market in a generation. They give the corn-growers of the West a new crop, at a nominal cost of production, for which there is a practically unlimited demand at high prices, when the fodder is converted into beef or mutton.

R. L. AUDREY.

## YOUNG MEN WANTED FOR THE FARMS

Just now much is being said about the lack of young men who are competent to superintend large farms. In almost every issue of our farm papers we see advertisements calling for men to take charge of farms. And the owners of such lands complain that they are unable to secure satisfactory help of that kind. Why? Where are the young men that they do not respond to the call?

It is sometimes said that the young men are turning away from the farm because they can do better in other lines of business; and it is no doubt true that in the past many have done this. So much has been said and written by those who ought to have been in better business about the wretchedness and the loneliness and the general poverty and unpleasantness of life on the farm that many boys have been induced to seek the city and larger town in the hope of finding something more congenial; but that time is fast passing by. A better state of things exists. Our farmers almost universally are talking the farm up instead of down, and the effect is seen in the larger number of young men who are entering upon careers of usefulness on the farms of the country. It is no longer considered beneath the dignity of any man to be called a farmer, nor is it any longer looked upon as an unprofitable occupation for those who go about it energetically and with a fair degree of intelligence.

And there is little reason to doubt that this very fact lies at the bottom of the scarcity of young men who are willing to engage as managers of farms for others. They are farming for themselves; they cannot afford to work on a salary for others.

There are several reasons why this is true. In the first place, most men have in their natures something which renders life under an employer distasteful. Independence of thought and action are very precious to all American citizens, and this is especially the case with the farmer. The free air of the country puts into his blood an iron which will not readily yield to the dictation of a superior. He chafes against it, and would far rather be at work for himself, even if at a lower wage, than to be compelled to submit to the directions of another, however kind those directions might be.

Twenty-one used to be a magic word with the young man; but now long before he has reached his majority he begins to want to be doing something for himself. He likes to think that he has some interest in the farm, if it be nothing more than to be recognized as the owner of a calf or a lamb; and it is a proud day when the father turns over to him a corner of land somewhere which he is to till for himself. This spirit of independence is well worth fostering in a day when we are being overrun by a world of men who have been brought up to toil for some one else.

And then, after fitting himself for the work of a farmer, few of our young men can afford to work for some one else. For, say what we may, it is no slight thing for a young man to get the education necessary to qualify him to be a farmer in this new and exacting century. Franklin said once, "A straight furrow and a well-made fence are sure signs of a good farmer." If Franklin lived to-day he would be compelled to add several factors to his list of requirements beyond the making of a good fence or the turning of a straight furrow. Not every man can be a successful farmer at the present time.

And here suppose we ask the young farmer lads who read this article to tell us offhand how many bushels of oats, wheat, buckwheat, rye or corn they would use in seeding an acre? How many pounds of timothy or clover would you sow an acre?

What season of the year would you sow these different crops? Can you tell good timothy or clover seed when you see it? How would you guard against purchasing foul seeds in your grass-seed? Can you make good butter yourself, and could you explain the process clearly to one who cannot? Can you run a reaper, mowing-machine or grain-drill as such a machine should be run? Do you understand the use of the milk-separator? If it were out of order, could you repair it? Could you do this with other tools of the farm? Do you know the names of all the trees and plants which grow about the farm? If you had a piece of wood cut from each tree on the place, and taken away from the trunk on which it grew, would you be able to identify that wood? If one of the horses you are using from day to day was taken sick, could you successfully treat the animal? The same way with the cow? Could you keep the farm books accurately? Do you know the worth of the stock on the farm, and of the farm products you are helping to raise? Can you successfully market all these articles? Do you understand all about the nature of the soil on the farm upon which you live? Are you acquainted with the various fertilizers on the market, and do you know what would be best to use on this farm? If it were necessary, or if you should be called upon to go out and appraise the land, stock or other property of a neighbor, would you be able to do so fairly and well? Could you act as one of the assessors of your township? Do you understand the way in which the public business of your township, county or state should be done?

If you are able to give good and satisfactory answers to all these questions; if you know all that pertains to the successful growing and marketing of the crops common to your vicinity, you surely cannot afford to be working for a stranger, no matter how flattering an offer he may make you. You should be looking forward to the time when you will be a partner with your father, as he will no doubt want you to be, or to the day when you will branch out for yourself. It would puzzle many a man who thinks he knows all about farming to answer these questions, and others which cluster around them, correctly. Hard and fast lines cannot, of course, be laid down for all sections of the country, but every young man should be able to give accurate answers to them, so far as his own part of the commonwealth is concerned. But he cannot do it unless he has made the matter one of the most careful study. Farming is an art. Art is long and life is short. The top is a place few of us ever see in the cultivation of the soil. New problems arise constantly. It is no wonder, it seems to me, that men are having a hard time of it to find young men able and willing to go out and work as superintendents or managers of farms.

E. L. VINCENT.

## CURRENT AGRICULTURAL NEWS AND NOTES

The "Independent" is authority for the following statement: "The people are growing frugivorous instead of carnivorous." This when interpreted probably means that we are now eating more fruit and less meat than formerly.

In speaking of thinning out fruits the Utah Experiment Station reports, "During the season of 1898 and 1899 the trees that had been thinned early and evenly in 1897 could be readily picked out by their larger and more evenly distributed fruit."

Of the forty-two million sheep raised in the United States eighteen million of them are to be found in New Mexico and the states of Idaho, Montana, Utah and Colorado.

The tendency of Southern peach-growers is to grow only the earliest-maturing varieties. On account of the great number of extensive peach orchards that are being planted a glutted market will be the inevitable result. The up-to-date peach-orchardist should grow not only early, but medium and late varieties, also.

The fruit prospects on the Atlantic coast were never better than at the present time.

The Agricultural Department at Washington, D. C., under the direction of Secretary Wilson, has attained a world-wide reputation.

Under date of June 11th the "New York Commercial" announces the sale of two carloads of California cherries at an average price of three thousand dollars a car.

The United States Agricultural Department farm, which is located between the Arlington Cemetery and the Potomac River, is now being used for practical experimental work. Forestry is being made a specialty.

Is it a fact that if the fruit-growers and farmers in Oregon do not keep their orchards free from insect pests the state will, and then present a bill for the expense?

The very valuable "Year-Book" of the United States Department of Agriculture is now ready for distribution. About the only sure way to secure a free copy is to apply at once to the member of Congress in one's district, or to one of the United States senators.

The value of sheep as weed-exterminators is beginning to be appreciated in western Texas. As soon as the shepherds with their flocks were forced to leave by the cattlemen, weeds not only grew "apace," but two or three paces, and now wool-growing is to be resumed.

The grower of cotton or tobacco who anticipates his income and mortgages his crop before it is planted usually continues to annually increase the amount of his mortgage until it finally takes all the profits of an ordinary crop to pay the interest. This is the so-called farming that don't pay.

The use of cotton in the United States in preference to that of wool and flax is shown by the fact that in the beginning of the nineteenth century nearly three times as much wool and flax was used as of cotton. At the present time, however, the use of cotton is more than three times as great as that of wool, and seven times greater than that of flax.

W. M. K.

## IN THE NEW GOLCONDA OF OIL

[CONTINUED FROM PAGE 1]

advertisements began to appear in all the dailies of importance in the country, offering fortunes to persons with money to invest. Land values went rocketing, and farmers who had not sold out at the start to speculators realized undreamed-of prices for their acres.

Many of these companies capitalized at immense sums started on practically nothing. Their promoters by paying a few hundred dollars down secured options on tracts of land, arranged for a charter, and organized a company. After this was done they offered for sale a portion of the stock of the company at half its par value, or thereabouts, and the proceeds of such sale formed the capital for the further business of the company.

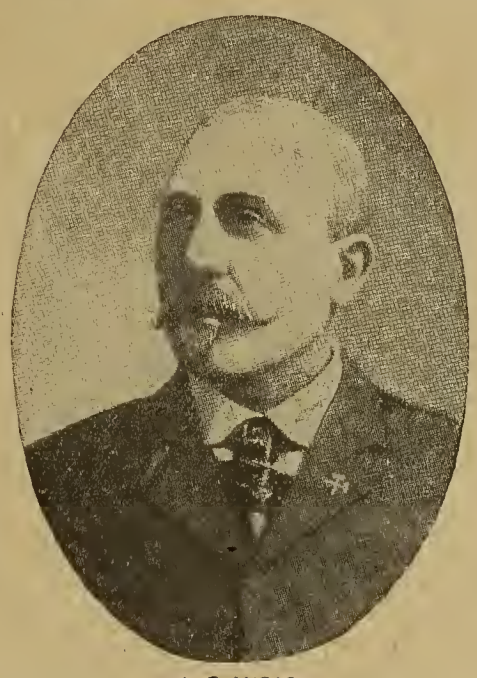
The output of the wells in the Beaumont field is almost entirely a fuel oil, very little of it being suited for illuminating purposes. Since the greater part of the product of the Standard Oil Company is illuminating-oil, those interested in the Texas wells say the Beaumont output will conflict very little with that of the giant trust, so will have almost a clear field. The proximity of these wells to the Gulf coast makes the transportation problem an easy one. The oil will be, and is now being, conducted to the Gulf through pipe-lines, and there permitted to run into steamers which will carry it to the seaport markets of the world.

The extreme low cost of getting this oil to the surface and of delivering it into steamers make it a most formidable rival of coal. It has been closely estimated that for the purpose of producing steam three and one half barrels of this Beaumont oil are equal to one ton of ordinary steam coal. A fair price, possibly a little below the average, even, for this grade of coal is three dollars a ton, which would make the value of oil as a fuel equivalent a little more than eighty-five cents a barrel. Since this oil can be sold at half this price and an immense profit be realized, it stands to reason that it will soon supersede coal to a very large extent as a fuel for producing steam.

As in the California of '49, in Australia, in Kimberley, in the Klondike, there were men who made "strikes" and grew rich almost as quickly as if they were the beneficiary of a genie; so, also, there have been in Beaumont. Luck, chance, or whatever it is that brings fortune to men who are no cleverer and make no more effort than other men, served some persons handsomely. These men were on the ground at the time of the strike for no other reason than that they were not some place else. What land they owned, if it were anywhere near the Lucas gusher, at once became immensely valuable, even though it were practically worthless before. A young man who ran a fruit-stand in Houston owned a tract of land that he had tried repeatedly to sell for ten dollars an acre. After the Lucas gusher was brought in he sold for a quarter of a million. Two or three years ago another man bought a larger tract of land at three dollars an acre for farming purposes, and at that time did not think he had secured a bargain. In April of this year he was offered over one half million for his land, and refused it.

In like manner many other holders of land in the oil territory profited by the strike; but very frequently it was the sharp speculator rather than the farmer who profited. As soon as oil was struck the speculators rushed into what seemed the oil territory, and bought up farms, or portions of them, at what seemed to their owners immense prices, but which were mere fractions of their later values. Some of these speculators held the land for a time and then sold at a great profit; and some formed companies or went into others for the development of the property they had acquired. An old German farmer who sold fifteen acres for one thousand dollars a day or two after the strike, and before he knew oil had been found, went crazy when he saw the value of his former land go up to several hundred times what he was paid for it.

But among all the Beaumont adventurers who struck it rich probably none is so well known as D. R. Beatty, the man from whom the second gusher drilled in Beaumont has its name. Three or four years ago he was a bridge carpenter in the employ of the



A. F. LUCAS

Southern Pacific railroad, and earned at that time one dollar and eighty cents a day. Since then, till he went to Beaumont, he lived in Houston, working at his trade of carpenter when he could find anything to do. After the Lucas strike he took a train for Beaumont, and became one of the earliest speculators on the ground. A friend of Beatty told me that Beatty had twenty dollars when he landed, and that he pawned his watch for another twenty—making the capital with which he began operations forty dollars. Another man assured me that Beatty started with two dollars and fifty cents. Whatever the exact amount of his original capital may have been, there is no doubting that it was exceedingly small.

Three months after he landed in Beaumont no one knew how much Beatty was worth—not even Beatty himself. The Beatty well, whose owners claim for it the distinction of having the greatest flow of all the oil-wells in the world, was sold for one million two hundred and fifty thousand dollars, which price also included the purchase-money for a number of desirable leases. Besides his share of this amount—he was only a part owner of the well—he has stock in several oil companies, and holds some land that is very valuable. Altogether he is either a millionaire or in a fair way of soon becoming one. From a poor carpenter to a millionaire—not a small financial journey to be accomplished wholly in two or three months!

Until the discovery of oil Beaumont existed mainly for the convenience of the owners of lumber-mills and their employees, and for the farmers of the surrounding country—a mildly energetic town of ten thousand, with little expectation of being more. Its name, "Beaumont," means "beautiful hill," though a spirit-level would be required to find any particular deviation from an almost floor-like flatness. Not accustomed to receiving a great many visitors, it was totally unable to accommodate properly the great inrush of people that followed the Lucas strike, consequently men slept where and how they could. Canvas hotels sprang up between sunrise and sunset—the dining-room a tent with sawdust under foot, pine boards for the tables, and more pine boards for the seats; the bedrooms smaller tents containing several cots. Restaurants of the same canvas family shot up in vacant lots—a rank growth, but liberally patronized—and meals were even served on pine-board tables on the street-corners, with not a vestige of protection from the hot sun or the eyes of the curious. In the established hotels five and six men, and occasionally even more, were put into a room intended for one, and cots and bunks were put in the hallways. Even then there were not lodgings for the men that jammed Beaumont's streets; and every night at seven-thirty o'clock, to accommodate the overflow, special trains left for Houston, Sabine and Port Arthur. On the following morning after breakfast these trains carried the temporary suburbanites back to Beaumont.

The places for the transaction of business are even more contracted than the places for sleeping, though every concern manages to get office-room somewhere. The Crosby House has been the scene of most of the big transactions, and is the center of the oil excitement, so very naturally all oil concerns try to locate as near it as possible. The result is that a dozen companies may be occupying space hardly adequate for one, and that a reliable and strongly backed concern may have an open-air office very much like the stand of a corner newsboy.

There is, or was, an open space, possibly forty feet wide by one hundred feet long, between the Crosby House and the sidewalk. At one end of this strip a peanut-man rented a space about four feet wide, and was preparing to establish a stand, when a man came up to him and offered him seventy-five dollars a month for a space about four feet square. The peanut-man accepted, and at once divided, by a pine railing waist-high, the rest of his territory into booths of similar size, which he immediately leased. This roused the proprietor of the Crosby House to emulation, and he divided the remainder of the space before his hostelry into similar booths, separated only by a light pine fence, and entirely open to the air save for a roof of boards; and all these he rented at the prices secured by his exemplar, the peanut-man. These booths are for the most part occupied by real-estate agents.

Just back of the Crosby House stands an abandoned theater, a wooden building possibly worth twenty-five hundred dollars. This was divided up by railings into office spaces eight feet square—the parquet, the balcony and the stage. The rent originally demanded for these spaces was seventy-five dollars a month, but within a few days the persons who had leased them at this price were holding them at five hundred dollars a month.

The offices of many of the highly capitalized oil companies are found in the most unlikely places. A corner behind the cigar-case in the front end of a drug-store—a space probably four feet square, and containing only a chair and a little desk—is the office of a company capitalized at a million dollars. As there is hardly room for a second person in this space, those who are interested in the company stand on the sidewalk without and transact their business through the window. Another million-dollar company occupies a six-by-eight tent, shoulder-high in the middle, and furnished by a single chair, a table, a typewriter, a trunk and a valise.

A glimpse at a small section of the annex of the Cordova Imperial Hotel will reveal the character of quarters in which most of the companies are compelled to carry on business. A single room on the second floor during the day is the office of a company capitalized at one million dollars, and at night is the bedroom of the company's officers in charge. When the room is cleared for business, a cot stands on the double bed and the typewriter on the wash-stand. The dresser is the repository of the company's stationery, stocks and other papers. Several other rooms at this end of the second floor also serve as an office by day and a bedroom by night, with the difference, however, that in some of them are several companies, the maximum being seven. Against the walls of the hallway into which these rooms open are built rough pine bunks three tiers high, and in these prospective millionaires sleep with no more comfort, though with a little more cleanliness, than do tramps in a ten-cent lodging-house.

All this crowding together of men, this feverish excitement, this wonderful increase in values, just because a persevering man drilled down through the prairie some thirteen hundred feet! In the history of the country there is not on record another such example of cheap farm-lands springing in such a short space of time up to such immense values.

## PASTURE FOR HOGS

Clover may always be recommended. Where alfalfa can be grown that is excellent pasture crop for hogs. Field-peas, rape and vetches are also excellent. The spring crops may be planted at seasons suitable for prolonging the pastures till frost comes. Blue-grass, rye, oats and barley make good pasture.—American Swineherd.

## Notes From Garden and Field

WASTED EFFORTS.—There are times when farmers and gardeners are very busy, and there are times when business is slack. Just now, with weeds and potato-beetles and cucumber-beetles making their joint attacks on us and our crops, and frequent rains with excess of soil moisture interfering with timely cultivation, we are having our hands full, and we surely must make every move count if we can hope to come out victorious in the end. I like to have all my helpers understand this, and while I am very easy, and let my help take it comparatively easy at times when I can afford to do it, I want close attention to business now, and no play in the fields, nor any other waste of time or effort. At this time we have work enough that we can all get tired out without seeking exercise in play and for fun. This is no time for taking any unnecessary steps, for wrestling and chasing one another in boyish play. We must carefully husband our strength and muscle. In the hot season we must drink, or most of us think we must drink, and possibly we ordinarily at such time drink much more and oftener than is good for us. Some people I find have a habit of stopping in their work every half-hour or hour, throwing down their hoe, or whatever tool they happen to work with, and running to the nearest well, even if that happens to be quite a distance from the field or garden. This needlessly adds a mile's travel or more to the half-day's work. Often these trips are made mostly for the purpose of killing time. I tell the boys (if they do not know enough to do it without being told) to take a bucket or can of water with them to the patch where they are at work, and stop and drink as much as they like, but to save those extra trips. If they must rest, they might as well sit in the shade by the side of the patch and make a business of resting until they feel refreshed and ready for work again. On the same principle I found fault this very day with a near relative—a young lady school-teacher—for ringing the front door-bell in a playful mood. She wanted to surprise us, she said. I told her the house was open to her always, and her business was to walk right in without making the girl or any member of the household take extra and unnecessary steps in these busy days.

CELERY GOING TO SEED.—Every little while somebody comes to me with the tale that his celery is running up to seed, and wants to know the reason why. In most cases I find on investigation that the seed was started very early under glass, say about February 1st. Such plants, if they suffer the least bit of check at any time in their early growth, especially in transplanting to open ground in a somewhat dry time, or in other ways, or by being put into rather poor soil, are very liable to run up to seed rather than to make merchantable stalks. And they will do this even when the seed used was of the very best and most carefully grown. Celery is a biennial. If we start the plants in the fall, no matter how late, and winter the plants over, they will surely produce seed-stalks quite early the next spring. Plants from seed sown under glass in January almost always, and from seed sown in early February quite often, especially when a check to their growth exercises an influence something like that of wintering, will send up their seed-stalks later in the season. All that is easily explained. The problem for us, however, is to discover how to treat celery so as to secure good stalks for the table, rather than seed, in early summer. My way is to wait until nearly March before sowing the seed in flats in the greenhouse, then transplanting to frames or seed-bed in open ground, and pushing the plants to thriftiest growth right along, never giving them a chance to lag even in and through the final transplanting to the celery-patch. And beware of blights, too.

EARLY TOMATOES.—In the manner that I treat my tomato-plants I do not see the least advantage of putting them in open ground before the air and soil have become thoroughly warmed up. This spring was an especially late one. Up to June it was cold and wet, although we did not have any late frost worth mentioning. Some gardeners planted their tomatoes during a few warm days in May. These plants soon encountered the bad weather of the latter part of May, and they turned yellow and looked decidedly sickly, refusing to make any growth whatsoever. In the meantime I had my plants standing in the greenhouse, each separate in one of the plant-boxes so often mentioned by me in these columns and elsewhere. I use the four-and-one-half-inch cube size, and they seem to be just the thing for the purpose. In fact, the longer I grow tomatoes in this way, the more I think of the box plan. No matter what the season is outside, the tomato-plants make a good growth in these boxes. I try to keep them down pretty well; that is, to give them room enough so they will not run up excessively tall and spindling. We did not have so very much sunlight during May, anyway, and this had a tendency to make the growth short and stocky. It was along in June when the soil was finally in shape again and warm enough to receive the tomato-plants. But what a growth they have already made in the two short weeks since they were put in open ground! There was no check, no standstill. They continued blooming and fruit-setting as if nothing had happened to them, and I shall have my new tomatoes nearly as early as I have had them in other seasons.

HONOR BRIGHT TOMATO.—I believe I was one of the first who recognized the value of, and recommended, the Honor Bright tomato as a shipping variety. It is an entirely distinct new type of tomato, the lower leaves having a yellowish color which is often taken for a diseased condition by the visitor who is unacquainted with the variety. The change of color in the fruit itself—first the ordinary green, gradually getting lighter, almost white, then lemon-yellow, then orange, and finally a brick-red—is really remarkable. The whole plant is bound to attract attention. Recently I found in one of my exchanges an article about the Honor Bright, by Mr. James J. H. Gregory, of Massachusetts, and I was pleased to find him an enthusiastic admirer of my old favorite, which he now also recommends as the shipping tomato par excellence. It has this one advantage, too, that the grower always knows exactly the right time for picking each individual specimen. The fruit gives unmistakable indications of this by its color. If you want to ship it very far, say to Europe, you may gather and pack it when of a pale lemon color; if to be shipped only a few hundred miles, you may let it come to a deep orange, etc. I now have in my collection a whole lot of new sorts (strains, sports and hybrids) of the Honor Bright type of tomato. Most of them were sent me by the originator, Mr. E. C. Green, of Ohio. Some have the ordinary standard form; others are dwarfs, like Aristocrat and Fordhook Fancy. Some have the ordinary tomato-leaf; others have the potato foliage, like Fancy or that of the Quarter Century. Altogether it is an interesting collection, and I have planted them not far from the public highway, so that people may have something to look at when they pass by. Occasionally I am asked what ails those tomato-plants, as the lower leaves appear so yellow. By and by people will ask me what I want with all those yellow tomatoes. I found Honor Bright superior both for canning and catchup, and altogether a good late tomato. T. GREINER.

### EASTERN NEW YORK HORTICULTURAL SOCIETY

SELECTIONS FROM ADDRESSES AND QUESTION-BOX

The professor showed views in orchards during the time of harvesting. The more universal custom was for the pickers to pick in bags suspended from the shoulders, so that both hands could be used. The bags are emptied on the grading-table or in windrows, and the apples are then graded and packed into barrels. He showed pictures of the wagons used for spraying, having large tanks and high platforms on which to stand when spraying tall trees. Two tanks were used on these wagons, each holding two or three hundred gallons, one being filled while the other was used on the wagon, so there was no delay in filling the tanks.

How can we obtain the maximum yield of strawberries? Mr. Powell: Cut the runners all off and grow in hills.

How do river fogs affect peach-growing? Mr. Taber: There is more danger of frosts, as there is more moisture in the air.

How shall we treat the quince-curculio? Grower used a machine which is like an inverted umbrella on wheels with good success. The trees are jarred, and the curculio are caught with the machine.

Does growing crimson clover in orchards affect the color of the fruit? Mr. Powell said the apples in his orchard were of a lighter color since he had been growing crimson clover, and he advised using potash in connection with it.

Which are the best ornamental trees for the lawn? Mr. Dwyer: The different varieties of maples are standards. The Japan maples are fine for the lawn or a private road. The catalpa is the finest flowering tree. Among the evergreens the spruces, pines and hemlocks are all desirable. I would plant the Norway spruce for an evergreen hedge. The hydrangea is the best flowering shrub. The spireas are also beautiful. We have honeysuckles of bush form that begin to flower in March, and the different varieties flower successively through the summer.

Would you advise planting the Windsor cherry? Mr. Dwyer said that after giving it a thorough trial he had found it sufficiently hardy for this state. It is one of our finest cherries, and very desirable.

What is the value of the Dikeman cherry? A grower said that its chief use was for growing cherry-stones.

Mr. W. H. Hart, of Poughkeepsie, New York, gave some points on growing and preparing fruits for cold storage. He said there were some varieties of apples that were not desirable to grow for cold storage, because they were liable to scald. Among these were the York Imperial and the Rhode Island Greening. The Baldwin and the Northern Spy keep well in cold storage. Apples grown on trees that are cultivated and sprayed are less liable to scald. Put only the best fruit in cold storage. Grow only a few kinds of apples for cold storage, as space is valuable, and divisions take up too much room. Dealers prefer to buy a large block of a standard variety.

"Forest Problems and Influences" was discussed by Professor F. W. Card, of the Rhode Island Experiment Station. He spoke of the benefits of growing forests on land not adapted to cultivation, or what is called waste land. He first discussed the commercial side of the subject, and cited instances in Europe where for many years the annual profit of land of this kind kept covered with forests was from three to four dollars an acre. This is not a large profit, but we should consider it is from "waste land," and there is no expense except for taxes. Regenerating forests is slow and expensive if done artificially by planting seeds or trees, but no doubt is profitable for the treeless tracts like the prairies. The best lumber is obtained from seedling trees produced in this way. The white pine is, I think, the most profitable forest-tree. There are other considerations than the commercial in preserving our forests. The relation of the rainfall is a question which we are yet unable to answer, and probably much depends on the locality, the distance from the sea-shore, elevation, etc. We know more about what the results are after the water falls if the trees are cut down. Where the land is covered with forests the surface of the ground is more uneven, and the hollows hold the water, so that instead of washing off it percolates in the soil and feeds the springs, and so helps to conserve the water supply. W. H. JENKINS.

## Orchard and Small Fruits

CONDUCTED BY SAMUEL B. GREEN

**Grafting the Mulberry.**—C. H. C., Berlin Heights, Ohio. There is no other fruit that can be grafted upon the mulberry, but different kinds of mulberry may be grafted together, and if you have a poor variety you can undoubtedly improve it by grafting. If the tree is large it will probably not pay you to do so, and your best plan will be to buy a smaller tree of some better kind than that you now have. The Downing is probably as good as any.

**Plum-aphis.**—T. K., New London, Iowa. The plum-leaves inclosed are infested with what is known as plum-aphis, or leaf-lice. These are quite abundant this year. They are liable to spread to other trees, but are now probably about as bad as they will be this summer. If, however, they are in very bad condition, I would suggest that you use tobacco-smoke. The best way to use this is to cover the tree with a tent of cotton cloth or other material, and make a smudge of damp tobacco-stems in a coal-hod or similar vessel and fill the tent with smoke. This treatment will at once remove all the lice, and is the most satisfactory remedy I have ever tried. I have had fairly good results, however, from using kerosene emulsion and very strong tobacco-water. If you decide to use tobacco-smoke for your trees you must be careful not to let the stems blaze up, or the air will get so hot that some of the foliage will probably get burned. In using tobacco-water on small trees I have found it most satisfactory to carry the water in a basin and dip the infested twigs into it.

**Budding Peaches.**—R. A. M., Millersburg, Ky. It is customary to bud peach-trees in the autumn of the first year from seed, but the work may be done the next year, although the bark near the surface of the ground will often be too thick and hard for best results. You can probably bud these trees on the new growth in August with good chances of success. By that time they will have started well, and should be budded near the base of the new growth. Will see that an article on budding appears in an early issue of FARM AND FIRESIDE.

**Currant Cuttings.**—W. K., Brookville, Ill. The best time to set out currant cuttings, I think, is in the latter part of August or first of September, or as soon as the leaves have fallen from the bushes. Make the cuttings about eight inches long, of the new growth, and set them about seven inches deep in the ground, putting them about three inches apart in rows two or more feet apart. The soil should be packed thoroughly around them. Treated in this way the cuttings should have sent out roots by the first of December, and the following year they will make a good growth. If you have failed to make cuttings of your Fay's currant until late in the spring, a good way for you to do would be to grow them by layers, for which purpose the branches near the ground may have the bark scraped from them on one side for an inch or so, or be slightly cut so as to expose a little of the inner bark to the soil and be covered three inches. Layered in this way in May they should be well rooted by September, and will make very good plants for setting out another year.

**Carolina Poplar—Osage Orange.**—G. A. H., Van Wert, Ohio. The Carolina poplar is simply an improved cottonwood, and I would not recommend you to plant a very large number of them. It is a fast-growing tree, however, and on that account desirable for some situations. It is very easily propagated and there is no necessity for your buying them. All you have to do is to get pieces of the branches one half inch in diameter eighteen inches long, and put them sixteen inches into the ground. This may be done in the spring, or even as late as June, with a good chance of their succeeding. All the leaves should be removed from the cuttings. Willows may also be grown in this way. The maple, however, is a much better tree for you, although it will not grow nearly so fast, but it is a far more substantial-looking tree and does not have the cheap effect which is often the result of large plantings of poplars. If you should make these poplar cuttings five or six feet long, of branches as big around as your wrist, and put them about two feet in the ground, you would get a growth even quicker than in the way I have described. ——The Osage orange cannot be grafted with any other kind of fruit. It makes a good wind-break, a good fence-post and is a pretty tree.

**To Get Rid of Ants.**—U. P. S., Salt Lake City, Utah. You can considerably reduce the number of ants in your house and about your shade-trees by catching them with baits. Probably the most convenient way is to take corn-cobs, dip them in syrup and lay them near the ant-holes. When they are covered with ants dip them quickly into hot water or kerosene. By following up this treatment a few days you will reduce the number very appreciably. If, however, your ants are in a few big nests where they can be easily reached they can be smothered by the use of bisulphite of carbon in this way: Take a lump of cotton batting about the size of a small egg, saturate it with bisulphite of carbon, dig a hole three inches deep in the top of the nest, in which place it, and then cover the whole nest with a piece of heavy carpet. The fumes of the bisulphite of carbon are sure death to any living animal confined with it. This material, however, is much like gasolene, in that it must be used with caution near fire. The ordinary material is generally quite expensive if purchased from the druggist, but there is a common grade of it that is manufactured for just such purposes as this, and which may be had at a very reasonable figure. This same treatment will also destroy rats, gophers and similar rodents in their holes.

**Plant-lice.**—T. S., Arlington, Minn. The best remedy for the lice, which are so abundant this year on snowball-bushes, plum-trees, etc., is a strong tobacco-tea. This should be fresh made when used. In preparing it I have found it most convenient to use tobacco-stems, on which pour two quarts of water for each pound of stems, so that the liquor will be the color of strong tea. For low trees and shrubs a basin filled with this may be carried to the tree and the ends of the branches where the lice are dipped into it. On a larger scale it is desirable to apply it with a spray-pump. Neither Paris green nor powdered hellebore are proper remedies for this insect, as it lives by sucking the juices of plants, and these insecticides are successful only in the case of insects that eat the foliage. Kerosene emulsion, however, if properly made, should prove a successful remedy; but where the lice are as abundant as they are this year, and the insecticide is sprayed onto the foliage, it is only a portion of the lice that is destroyed, since the foliage is generally curled up, and those underneath are not reached. I have also smoked plum-trees quite successfully to destroy lice. In order to do this the tree must be covered with cotton cloth or similar material, and then a smudge made in a coal-hod, or something of the sort, of tobacco-stems. This should be set under the protected tree and the tent filled full of smoke for perhaps four or five minutes, after which it should be allowed to stand for perhaps ten minutes. Great care should be taken that the tobacco-stems used for this smudge do not flame up while under the tree, as in such a case the smoke is so hot that it injures the foliage.

# THE POULTRY-YARD

CONDUCTED BY
P. H. JACOBS : HAMMONTON, N.J.

## LARGE NUMBERS AND SPACE

POULTRYMEN differ in regard to the number of fowls to keep in a poultry-house or on a farm, as the conditions, such as land, capital, size of poultry-house, etc., must be considered. The maximum number allowed for a flock is fifty fowls, but unless the poultry-house is very large a flock of twenty-five hens will lay more eggs than fifty, as they will be better cared for and have superior accommodations. Double runs will be found an advantage, as such a system avoids filth to a certain extent, and also permits of green food in one yard while the hens occupy the other. When large numbers of fowls are kept they will thrive better if in flocks of twenty-five, and will give good results if well cared for. If each hen in the flock gives a profit of one dollar a year it will be more than the average. Do not forget that in a flock of five hundred there will be some that will give no profit at all. There are also labor and food. The ground required for twenty-five hens should not be less than fifty by two hundred feet, which may be divided into two yards fifty by one hundred feet, with a house ten by twenty feet. The number will be about equal to one hundred hens on one acre, and if they give only a profit of fifty cents a hen in a year, or fifty dollars from fifty hens on one acre, it will be more profit than can be made on one acre from some crops.

But one must have capital, as it is necessary to success. The best way to cheapen the cost of space is to occupy it. Two large hens on the roost will take the space that three small ones would occupy, and as a small hen will lay as many eggs as a large hen, there is a gain of fifty per cent in having the roost occupied by the right breed. It is a waste of space to build a poultry-house with a large amount of the cost in the roof, when the floor is more important; and it is a loss of space to have the nests, troughs and water-fountains sitting in the middle of the floor that the hens require for scratching. It is cheaper to build a square poultry-house than to adopt any other plan, because more space can be inclosed within the walls, and it is often the case that one third of the space in a poultry-house is taken up by the alleyways that could be dispensed with.

Fowls should be given plenty of room, either in yards or in orchards. They are partial to outdoor exercise. The yard should have plenty of shade, that the fowls may be protected from the sunshine. Next in importance is water. Few people place sufficient importance on this matter. Poultry must have an abundance of fresh, clean, pure, cool water if they are to be maintained in a healthy condition. Nothing has so much to do with the health and thrift of poultry as water, as it is essential to egg production. As to feed, chickens are omnivorous, eating grain, vegetables, flesh and fish, and in feeding them they should have a variety. When feeding poultry, old or young, give just enough—what they will eat—and leave none to become sour or waste; for if feed is given carelessly, without regard to what they can eat, much food will be wasted.

## OATS IN SUMMER

Oats make an excellent change in the grain rations and answer admirably for hens that are somewhat fat, yet laying, as they serve better for laying hens than for any other class of poultry. For chicks they are best ground and scalded, but may be fed to better advantage in the whole grain to adults. They are cheap, considering their value for food, and during the summer seasons they may be fed alone with good results, as they are not heating, and contain a large proportion of the egg elements.

## MILLET-SEED

Millet-seed contains about two per cent of nitrogen, nearly one per cent of phosphoric acid and one half per cent of potash in its ash. It contains less water than wheat and more oil. Otherwise it differs but little from wheat, and is not quite as cheap, though it is really cheap in one sense, as one quart a day scattered over half an acre of ground for fifty hens will be the best food that can be given. It may be raked into litter for scratching if preferred.

## FOWLS IN YARDS

Vegetables, such as cabbage, lettuce etc., should be given to confined fowls in summer, and occasionally a small supply of chopped meat can be advantageously allowed. A good meal of wheat may be given in the evening before the fowls retire to their sleeping-quarters. This should be scattered as much as possible, and the fowls will work for it until dark. At molting-time there is an indisposition to search for food, and the fowls are generally found in a mopy condition, as the system is being severely taxed in the acquisition of new feathers; then considerably more support is required than at other times. If a little chopped meat, either raw or cooked, is thrown to them daily they will appreciate it and will get into condition much quicker than if they were treated indifferently.

## CEMENT FLOORS

Now is the time to get ready to fix the poultry-house floor. A great deal of feed is wasted by throwing it on the ground or dirty floor, which is not necessary. A cheap cement floor may be made as follows: Take four bushels of coal-ashes and one of fresh-slaked lime. Mix well, and let stand four or five days. To the above add one gallon of salt, and apply. It is rat-proof and as easily cleaned as any cement floor. The coal-ashes should be coarse, as it then becomes harder. To have it very firm make a foundation of broken stone, and make the cement thin enough to settle well into the stone. Let stand a few days, and apply a second coat. This is said to make a floor equal to any cement one.

## SCALY-LEG

When fowls are kept closely confined for a while (and also at times when they are on a field) they will be afflicted with scaly-leg; that is, an incrustation forms on the legs which sometimes is of a nature to make the shanks appear as though they were an inch in thickness. This difficulty is due to minute and invisible parasites, but they quickly succumb to grease; hence, an application of melted lard twice a week will remove the crust in two or three weeks.

## CORRESPONDENCE

A LICE REMEDY.—I read so much in your paper about remedies for lice and mites on fowls, I send mine, which is sure and simple. Give the fowls cedar roosts, no other, and you have it. My age is nearly seventy-four years, and I have used the cedar roosts in different parts of the country and have never had vermin on my fowls.

Wilcox, Arizona. A. C. T.

## INQUIRIES ANSWERED

**Chicks Dying.**—E. L. H., Kinderhook, writes: "Many of my chicks close their eyes, seem to be unable to open the lids, and die. Please give a remedy."

REPLY:—Method of managing the chicks should have been stated. When chicks appear sleepy, and stand with their eyes shut, the cause is generally the large lice on the skin of the head and neck. Apply a few drops of melted lard.

**Two Eggs a Day.**—W. B., Black Rock, Utah, writes: "Is it possible for a hen to lay two eggs in one day? I have heard of such cases, but doubt the possibility of hens so doing."

REPLY:—It is possible that a hen may lay an egg early in the morning and one late in the day, omitting laying the next day, but cases are very rare. It is possible, as stated, but no records have been made of two eggs in one day.

**Blindness in Chicks.**—J. S. L., Scullville, N. J., writes: "I have chicks that become blind, though their eyes appear open. I feed a variety, they have a dry place and have liberty of the field. They go blind when about a week or three weeks old."

REPLY:—It may happen from exposure, but the probability is that they are not really blind, but stupid, due to large lice on the skin of the heads, neck and body. Anoint with a few drops of melted lard.

**Scaly-leg.**—J. K. A., Hubbard, Oregon, writes: "Some years ago you published a remedy for scaly-leg, which I found to be a sure cure. I think the ingredients were carbolic acid, sulphur and lard. It would benefit many if you will repeat it."

REPLY:—The remedy was one gill of sulphur and one half pint of melted lard, adding one tablespoonful of crude carbolic acid. Any kind of grease, however, will kill the parasites, provided it is applied twice a week. Melted lard alone is excellent.

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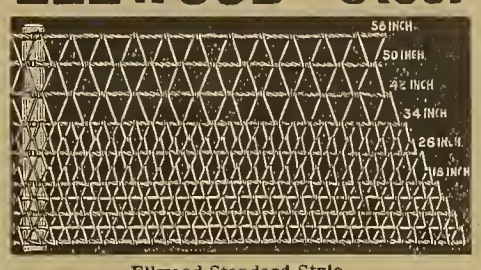


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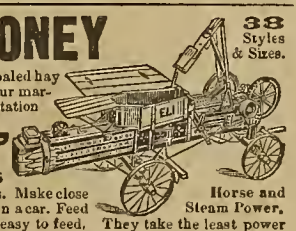

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# QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

**Sowing Blue-grass Seed.**—O. T. A., Mylandville, Pa., writes: "I wish to know when to sow blue-grass, and how much to sow to the acre."

REPLY:—Early spring is the best time to sow blue-grass, but a good stand can be secured from September sowing if fall rains are frequent. If you wish a lawn, sow blue-grass at the rate of four bushels, and white clover at the rate of two pounds, to the acre. If you wish a permanent pasture sow two bushels to the acre with the usual quantity of timothy and four or five pounds of Alsike clover. The timothy will be superseded by the blue-grass after two or three years. A clay loam limestone soil is best.

**Purifying Water.**—A. Z., Tallmanville, Pa., writes: "A well now thirty-two feet deep contains impure and offensive water. Ten feet and new stonework were added last season. It is in clay hardpan soil with a small vein of water. Can you tell me what, if anything, will purify the water?"

REPLY:—If the water flowing into the well is impure we know of nothing safe to add to it to purify and make it fit for drinking. If the impurity is due to something that has fallen into the well, pump out all the water and remove the cause. After the water flows in again put into the well an ounce of potassium permanganate to every fifty gallons of water. Agitate the water thoroughly, and then pump it all out. The fresh supply should then be pure and odorless.

**Frog Farm.**—F. S., Columbia, Ga., writes: "I am anxious to know the modus operandi of frog culture. I have the ideal place for such, if water and marsh are items—pure, beautiful springs of freestone water, and plenty of flat ground between slopes to pond the water. Tell me something about the culture and marketing. If you know any work on the subject, direct me to it and place me under very special obligation."

REPLY:—We know of no book on frog culture. Possibly the United States Fish Commission, Washington, D. C., can give you the desired information. Make the pond as much like the natural habitat of frogs as possible, stock it, and let nature take her course. There is a market for frogs' legs in cities. An express agent here receives and delivers them to restaurants and regular customers.

# VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

**Paralytic in Hind Quarters.**—M. B., Rosalia, Kan. Please consult answer to H. R. K., Sioux Falls, S. D., in FARM AND FIRESIDE of April 15th.

**Ceases to Conceive.**—N. H. W., Monticello, Minn. If your cow, eight years old, and formerly a good breeder, comes in heat every three weeks, but does not conceive when served, the cause very likely consists in a diseased (probably tuberculous) condition of the ovaries.

**Milk Thickens.**—K. K., Menominee, Wis. The milk of a fresh-milking cow, the colostrum, always thickens when heated to the boiling-point, because such new milk contains a large quantity of albumen, which necessarily will congeal (get thick) when heated. The albumen in the milk will disappear before the calf is many days old.

**Hardly a Case of Mange.**—A. E. B., Edgar, Neb. Your description hardly applies to a case of mange, nor, unless you omitted important symptoms, to any other skin disease of hogs. It will therefore be best to have your boar examined by a veterinarian, and if you want a correct diagnosis to inform the veterinarian of what has been done with the boar.

**Pastern Catches (?).**—A. M. B., Cedar Bluffs, Kan. I really do not understand what you mean by the phrase "the pastern catches." Maybe you mean to say that the horse, perhaps a young animal, is unsteady in a pastern-joint, or, in common parlance, "knuckles over." If such is the case the immediate cause very likely consists in a morbid relaxation of the extensor tendon and the ligaments of the affected joint, and the mediate cause in burdening a young horse with too much hard work, and in consequence a straining of the flexor tendons. The treatment requires an exemption from work for some length of time, good and nutritious food, and good care in general. After a few weeks some voluntary exercise may be allowed, but not until every trace of lameness has disappeared.

**Bloody Milk—Incontinence of Milk.**—E. M. P., Great Falls, Mont. Concerning your first question about the admixture of blood in the milk of one of your cows please consult the numerous answers given to "bloody milk" questions in recent numbers. Your cow that "leaks," lets go or does not retain the milk between milking-times, will require more frequent milking.

**Breeding of Undeveloped Animals.**—D. F. S., Nebraska, Pa. If your mare, although three years old, is yet insufficiently developed or too small for her age and breed, but now growing nicely and promising to grow up to a fair size, she should not yet be bred, because compelling her to develop a fetus would seriously interfere with her own growth and development and cause her to remain a stunted animal herself. Therefore, better wait a year.

**Probably Cow-pox.**—J. E. H., Newton Falls, Ohio. What you describe looks like cow-pox. It is not a malignant disease, but it will run its course, which is about twenty-one days. Since it is seldom that any cow or heifer will escape after the disease has once invaded a herd, and as it may be many weeks, if the herd is a large one, before the disease disappears, it is often advisable to either inoculate at once the whole herd, or, if not yet too late, to separate the same and to quarantine the diseased and infected part of the same. It is not advisable to use the raw milk of the diseased cows. Sores on the teats may be anointed after each milking with a mixture composed of equal parts of lime-water and olive-oil.

**Skin Disease.**—L. B. H., Bellaire, Ohio. The skin disease of your mare appears to be closely related to what is usually called ringworm if it makes its appearance in cattle. First give the mare a good wash with soft soap and soft water for the purpose of removing all scabs and crusts. Then if the affected parts are not too extensive paint the latter by means of a small brush with tincture of iodine, or if very extensive give the animal another thorough wash with a four-per-cent solution of creolin in water. Repeat either the tincture-of-iodine application or the creolin wash on the third day, and, according to circumstances, once more on the fifth or sixth day. Meanwhile see to it that the premises in which the mare has been kept are thoroughly cleaned and disinfected, so as to prevent a reinfection. If this latter is neglected a permanent cure cannot be expected.

**Anthrax, or Charbon.**—A. K., Hitchcock, Texas. It is possible that your cow died of anthrax (charbon, French, or Milzbrand, German). But the symptoms of your mules, as you describe them, are hardly those of anthrax. Some of them might be observed in cases of anasarca and acute dropsy. Anthrax, or charbon, is a highly infectious and exceedingly fatal disease which very seldom or scarcely ever terminates in recovery, but usually within a few hours to a few days in death. It is characterized by the very black and non-coagulated blood—hence the names "anthrax" and "charbon" (meaning coal)—and the invariable presence of the Bacilli anthracis in the blood, and in large numbers in the blood-vessels of the principally affected tissues. These bacilli constitute the sole cause, and as the same are, for bacteria, rather large, and can be easily seen and recognized under an amplification of two hundred diameters, the diagnosis can be made by any one who possesses a fairly good microscope and knows how to handle it. A medicinal treatment is useless in cases of anthrax.

**Cows Sick and Dying.**—E. T. L., Minden, La. If your veterinarian who made the diagnosis of rabies, or hydrophobia (the latter name, although often used, is a misnomer), did so after he had made an examination and a careful investigation, his diagnosis is probably correct; but if he made it on such a description as you have given me, it is of very little value, because your description does not contain anything characteristic of the disease of rabies, nor anything that makes it certain that it was not rabies, but something else. If rabies has occurred in your neighborhood; if the bellowing of the affected cattle was peculiarly hoarse; if in some of the animals not only paralytic symptoms in the hind quarters, but also in the lower jaw, could be observed; if the animals slavered; if the same appeared to be more or less pugnacious while sick; if they were constipated, and repeatedly made strong but mostly vain efforts to make dung; and if, at a post-mortem examination, the blood in the veins was found to be non-coagulated, but rather thick or semi-fluid and of the color of a ripe black cherry, the diagnosis of rabies may be considered as confirmed.

**Lampas.**—H. B. M., Atwood, Ill. Lampas is a term applied to an imaginary disease. All young horses have more or less succulent gums, but particularly when in pasture or kept on juicy food. If such a horse having succulent gums is ailing, the cause of the disease or indisposition is somewhere else, and the apparent swelling of the gums has nothing to do with it. Under certain circumstances—for instance, when a young horse is shedding its teeth, especially when the permanent molars are cutting through, or when a horse is suffering from catarrhal diseases, but particularly if the mucous membranes of the digestive apparatus constitute the seat of the morbid process—the gums may show more or less swelling; but this is only a symptom and not at all the cause of the existing disease. Therefore, it does not require any treatment; on the contrary, any cutting or burning of the swelled gums, so often done by ignorant persons, is very injurious to the horse, and often inflicts a permanent injury upon the same. Consequently, if a horse is ailing, instead of unthinkingly jumping at a conclusion, the real and true causes should be ascertained by a careful examination.

**Fails to Come in Heat.**—F. C., Odessa, N. Y. If your Jersey cow has been repeatedly served, but fails to show any signs of coming in heat, may it not be that she is with calf? If you are sure that she is not I would advise you to let her have for a month or two the company of a male, and if that will not do, to milk her as long as it is found profitable to do so, perhaps for a year to come, and then to fatten her for beef.

**Bloody Urine.**—E. M., Hillrose, Col. Your description indicates the presence of a stone (urine-stone) or concrement in the bladder, which, of course, can be removed only by a surgical operation, to be performed by a competent veterinary surgeon. Since your horse seems to be a mare (you use the pronouns "her" and "she"), the examination and operation are not near so difficult as they would be in a male animal.

**Sick Horses.**—M. A. G., Kozalton, Minn. You say you desire an answer on June 15th, but mailed your letter, dated June 5th, not before June 18th. It arrived June 20th, so you will probably get an answer on July 15th. Is that what you desired? The only positive symptom besides general weakness and debility given in your communication is polyuria in one of your horses. As both polyuria and general debility may be the consequences of various chronic diseases, your whole communication does not furnish any basis whatever for a reliable diagnosis. The anemic condition of your horses, found by your veterinarian some time ago, accounts for the weakness and probably also for the polyuria you observed in one of your horses. I deem it best to advise you to intrust the treatment, provided your horses are not yet past recovery, to the veterinarian you consulted before. May it be that your horses have been fed with spoiled and musty oats?

**Lost Hair.**—E. B., Richland, Ohio. Although you do not state whether the hair, or bristles, on the back of your sow dropped out or were rubbed off, I have no doubt your father is right—that lice did it. If no lice can be found now it may be that they succumbed to applications of coal-oil, which may have removed even more hair than the lice themselves. The story that was told you has to me the appearance of a fib. If there were lice, and the same were destroyed by applications of coal-oil, you will probably find some yet behind the ears of the pigs.——Whether or not it is advisable to breed a sow at a certain time of the year depends upon local conditions, and the only thing I can say is that a sow intended to be kept as a brood-sow should produce, in order to be profitable, two good-sized litters of pigs every year, and that one not able to do that is best to be converted into pork. If a sow raises but a few pigs, not enough to consume the milk available, all danger will be prevented if the sow is kept on a light diet as long as the pigs are very small, because the pigs, if only a few, will soon learn to get away with all the milk they can get. But such a sow is hardly a profitable one.

**Attacks of Colic.**—H. H. H., Madera, Cal. Such repeated attacks of colic are, at least in most cases, the product of a worm which inhabits in its immature state the anterior mesenteric artery. When approaching maturity this worm tries to make its way through the walls of the intestinal arteries, or intestinal branches of the anterior mesenteric, over twenty in number, into the intestines, and by doing so frequently closes up an artery, and thus paralyzes the intestine provided by that artery with blood, until the circulation is restored through the next anastomosing artery. While the intestine is paralyzed, or unable to perform its functions, the contents are not moved, while in front and behind the peristaltic motion will be irregular and even violent. The griping and uneasiness thus caused manifest itself as colic. From this brief explanation it will be seen that so-called colic medicines are next to useless, and that a violent forcing of the peristaltic motion by heroic medicines is very dangerous. It is true that some assistance to, or promotion of, the peristaltic motion is often useful, but to decide where it is and where not should always be left to the judgment of a competent veterinarian. In other cases these worms, while penetrating the wall of such an intestinal artery, will cause more or less hemorrhage, which is easily found at a post-mortem examination if it has become fatal, but which remains unnoticed or hidden if the animal recovers. There is no doubt that it is much more frequent than is usually supposed. Such a hemorrhage, of course, even if diagnosticated, cannot be stopped. The worms once within the anterior mesenteric artery cannot be removed until they leave of their own accord; but as a new worm-brood will immigrate if horses drink stagnant water, or water from pools or ditches, etc., containing the same, any further immigration of the worm-brood can be prevented if the horses are not allowed to drink any water except what is drawn from a good, deep well, from a good spring, or from a source necessarily free from any worm-brood. Besides this, absolute regular feeding, although it will not necessarily prevent these attacks of colic, will undoubtedly render them less frequent. In large cities, where horses get nothing but hydrant water to drink, cases of colic are comparatively rare, and if they occur it is usually in horses that have been in the country, have been pastured, or have had opportunities to drink stagnant water, or water containing drainage from a barn-yard or a horse-pasture. Of course, there are other causes of colic besides these worms—for instance, fermenting food, including cut grass and clover fed when wilting, or wilted new hay and new grain in a process of fermentation, etc.; but the cases of colic due to these causes are much less frequent than those caused by the worms, known to science as Sclerostomum equinum.

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FARM AND FIRESIDE, Springfield, Ohio

**WANTED** To teach you to make Soda Water without a fountain at ½ cent a glass. Send address to T. E. VAN ALLEN, Amsterdam, N. Y.

## THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

### CURRENT COMMENT

**Year-book for 1900** The "Agricultural Year-book for 1900" is of unusual value and interest. The illustrations are principally full-page half-tones. The frontispiece is a portrait of William Saunders, one of the founders of our order, and an eminent horticulturist and landscape-gardener. A careful estimate of his life and services to his country—a tribute to his memory—is an interesting feature. The writer is the editor of the "Year-book," George William Hill. The report of the secretary is of interest, showing the work that has been done, together with suggestions of what might yet be done.

Each division, bureau and office of the Department is represented. The following titles indicate the wide range of subjects touched upon: "Smyrna Fig Culture in the United States," "Amplification of Weather Forecasts," "Agricultural Education in France," "Commercial Plant Introduction," "Forest Extension in the Middle West," "The World's Exhibit of Leaf-tobacco at the Paris Exposition of 1900," "Influence of Rye on the Price of Wheat," "Mountain Roads," "Fungous Diseases of Forest-trees," "Rabies," "The Scale-insect and Mite Enemies of Citrus-trees," "How Birds Affect the Orchard," "Some Poisonous Plants of the Northern Stock-ranges," "Hot Waves," "The Value of Potatoes as Food," "The Selection of Materials for Macadam Roads," "Practical Forestry in the Southern Appalachians," "Commercial Pear Culture," "Objects and Methods of Investigating Certain Physical Properties of Soils," "The Food of Nestling Birds," "Development of the Trucking Interests," "The Date-palm and Its Culture," "Practical Irrigation," "Free Delivery of Rural Mails," "Successful Wheat-growing in Semi-arid Districts," "Testing Commercial Varieties of Vegetables," "The Use and Abuse of Food-preservatives," "The Influence of Refrigeration on the Fruit Industry," "Our Native Pasture Plants," "Dairy Products at the Paris Exposition of 1900." The appendix of over two hundred pages is of special value, and gives statistics of agricultural colleges and experiment stations, with requirements for admission to the colleges. An illustrated article on free delivery of mails will arouse more interest and enthusiasm in that much-needed convenience. The year-book is to be had free on application to your senator or representative. It will be a valuable addition to any private or grange library.

**Too Hard** An earnest lecturer in speaking of the difficulties that arose in her work said: "I suggest so many subjects for discussion that the members say are too deep or too hard. They really are not, but they have not thought of them. I aim always to give subjects that the members can read up on. They can have access to my library or to the Rev. G's, and Judge H offers his splendid library for reference. But they will not avail themselves of the opportunity, so that one year's meetings do not differ materially from another. We take up the same subjects, in different forms, perhaps, but in reality the same; the same arguments are used, the same illustrations, the same language. My members are as bright and capable as any others, but I cannot get them to study any new questions." The same complaint comes from state, Pomona and subordinate lecturers. Just why such a difficulty should be universal is hard to understand. No doubt it is a relic of childhood's habit of putting off disagreeable things. They avoid one task because it is too hard, and another because they are too indolent to overcome the difficulties in the way. When they grow older and the problem of life is presented to them they shirk a thorough preparation for fighting life's battles because it is too hard. This trait becomes a fixed habit; they go through life dodging and skulking, and in the end get the hardest knocks. They find nothing of that fine enjoyment that comes from meeting and overcoming obstacles; they are forever at the mercy of those made of sterner stuff, who fight manfully and bravely, never yielding save after every effort has been exhausted, every plan has failed. These men and women become the leaders in the world of thought and action; they are the dictators. Surely the world renders a just recompense.

First find whether the topic suggested is of worth to you; whether it will pay you to give time and thought to unravel its difficulties. If it is of worth to you, then search out its secrets. You will grow in knowledge and strength; succeeding problems will be easier of solution; you will exchange the servile badge for that of mastership, and will be happier and better for the striving. Let us each one resolve not to shirk a task because it is "too hard;" let us inquire its worth to us, and if of value cling to it. Then will our grange become stronger and more capable of helping both its members and those out of its folds.

**Situations Wanted** A man forty years of age, with family, now living in Illinois, wants to change his location. A single man thirty-five years of age wants employment within one hundred miles of Chicago. Both offer to furnish recommendations. If those who asked for help early in the season will write, inclosing stamps, the addresses will be forwarded.

**Nature-study** A number have written asking how, in the present crowded condition of the rural-school curriculum, nature-studies can be added. All favor the introduction, but few can see how it can be successfully accomplished. I do not believe it advisable to use text-books at present. The demand is for teachers who can teach not only nature-study, but other branches without a slavish reliance on text-books. Text-books are the inevitable tools of the indolent, inefficient, indifferent teacher. The insistent demand by the patrons of the schools will surely lead to more competent teachers. Much of nature-study must be from direct observation of the phenomena of nature by the pupils themselves, directed by the teacher. Even in the best-regulated schools there is a deal of wasted time and energy. Children are not capable of sustained attention. It is impossible to obtain satisfactory results by keeping them seated for a long period of time. These restless periods of the children are the teacher's golden opportunities to send them on tours of observation. The skilful, tactful teacher will soon impress upon the child the fact that these few minutes' relaxation from school-room duty are moments of as real and sincere work as that under the teacher's eye in the school-room.

There is a vast deal of time spent in teaching things to the children that can be of no use to them in after-life. Educators, under the demand for broader work, are eliminating unessential parts of arithmetic, grammar and geography and substituting work that will better tell in the after-life of the pupil. Some of this time is given to nature-study.

It is impracticable to teach the elements of scientific agriculture in ungraded schools. The one thing essential is to train and develop the power of observation in children, and lead them to inquire further into the mysteries of nature. Our education has been away from nature, not toward it. We want to reverse the order, and see if stronger, purer, better men and women will be the result. The way to teach can easily be found whenever the will is present.

### GRANGE HEADQUARTERS AT BUFFALO

The following circular indicates the pains the New York State Grange is taking to entertain its guests. Let every Patron and his friends avail themselves of this opportunity; and those of you who are not Patrons call at headquarters and see what the grange is doing for the farmers. The circular is signed by E. B. Norris, chairman of the National Executive Committee, and Ira Sharp, New York State Executive Committee:

"We, as chairmen of the Executive Committee of the National Grange, also of the New York State Grange, wish to call the attention of all Patrons to the work already done regarding the facilities that are afforded for the pleasure and comfort of Patrons and their friends at the Pan-American Exposition. We take this method of writing all subordinate granges in the United States and Canada, by sending to each a letter similar to this, and asking that it be read at each of the next three meetings of your grange, in order that every member may be entirely familiar with the plan and scope of the work as mapped out by the committee, so far as it touches the interest of everyone who will attend the Exposition.

"Contracts have been made with the Keese Information Company for your accommodation, with all of the leading hotels and rooming-houses of Buffalo, they having on their lists some forty hotels and nearly one thousand private homes and rooming-houses. We find that the prevailing rates for lodging and breakfast will be, in locations near the grounds in some of the best homes in Buffalo and in comfortable hotels, one dollar and twenty-five cents to the Keese Information Company's customers, who will largely be Patrons, and their friends. Also comfortable lodgings in locations less desirable, but of easy access to the grounds by street-car, can be obtained at fifty cents a night, and meals at twenty-five cents each. Provisions have also been made by this company for the establishing of two camps of tents, numbering from one hundred to two hundred tents in each camp, each tent accommodating four persons. These will be neat, clean and comfortable quarters, and at the service of our people, through the Keese Information Company, at fifty cents a night for each person. These camps will be located in immediate proximity to the grounds. Your committee recommend these tents in preference to Pan-American hotels. This plan is particularly desirable where a number of members of a subordinate grange may desire to attend the Exposition in a body, as ample accommodations can be secured in these camps, and meetings can easily be held if it seems desirable.

"The services of our popular and well-known brother, past lecturer of the New York State Grange, E. P. Cole, have been retained by the Keese Information Company, and he will be found ready to welcome all Patrons and their friends at the company's headquarters at No. 72 Exchange Street, opposite the Union station. The officers of the grange have equipped and will maintain headquarters at the Exposition, situated in the very heart of the most interesting part of the grounds. At these headquarters there has been provided a post-office, where all visiting Patrons and their friends can receive and dispatch their mail. Letters sent to visitors from home should be addressed to the "Grange Building, Pan-American Exposition Grounds, Buffalo, New York." All visitors can check their baggage and be assigned directly to lodging-places. The Keese Information Company will have a representative in this building, and Sister B. B. Lord will at all times cordially greet and attend to the wants of all Patrons who may call at this building.

"Runners of the Keese Information Company will meet all trains, dressed in blue uniforms with yellow braid trimmings, a yellow star on the left breast of the coat, the word 'Grange' on the front of the cap. All care will be taken from the shoulders of the grangers and their friends, who will place themselves in charge of these guides at the Union station or other down-town depots, or who will come direct to the Grange Building on the grounds.

"Your committee feel that the arrangements herein outlined are the best that could have been made. The plan of operation of the Keese Information Company is to issue to each applicant, for the sum of one dollar, a guide-book of the city and the falls, a map of the grounds, a map of the city and a complete hotel list, also a rooming-house list, together with a rebate certificate entitling the holder to a rebate of one dollar from his hotel bill, provided that bill is for five dollars or more."

### BRIEFLETS

Nothing is so hard to forgive in an enemy as success.

The body of man is the most reverend phenomenon under the sun.—Carlyle.

Bending before men is a reverence done to this revelation in the flesh. We touch heaven when we lay our hand on a human body.—Noveles.

If the spiritual enjoyments of heaven are conditioned by the spiritual progress of this world, some people will have a perpetual poverty social.

### A WISH

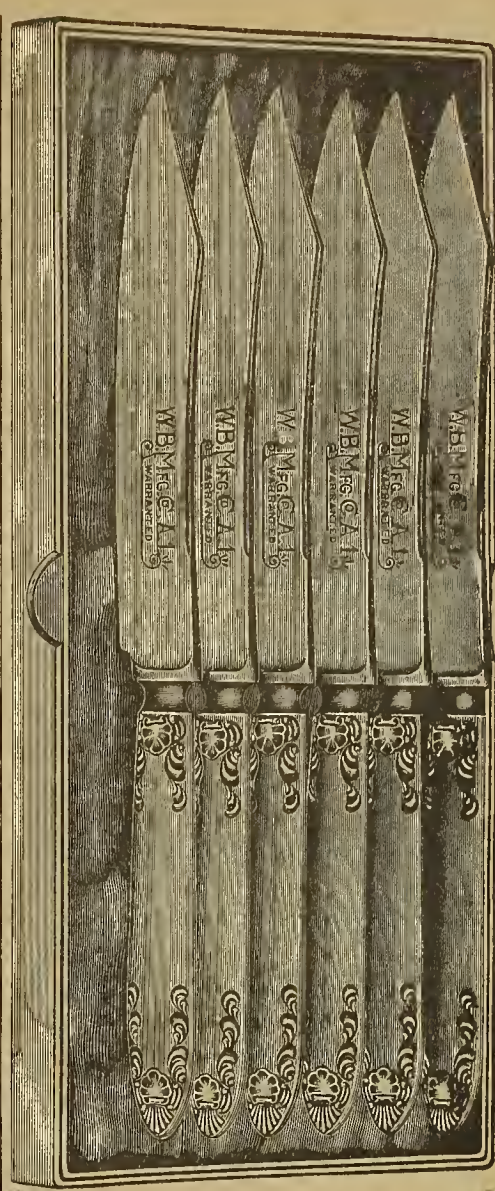
Mine be a cot beside the hill;
A bee-hive's hum shall soothe my ear;
A willowy brook that turns a mill,
With many a fall shall linger near.

The swallow, oft, beneath my thatch
Shall twitter from her clay-built nest;
Oft shall the pilgrim lift the latch,
And share my meal, a welcome guest.

Around my ivied porch shall spring
Each fragrant flower that drinks the dew;
And Lucy, at her wheel, shall sing
In russet gown and apron blue.

The village church among the trees,
Where first our marriage vows were given,
With merry peals shall swell the breeze
And point with taper spire to heaven.

—Samuel Rogers.

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THIS THIMBLE is first-class in quality, heavy in weight, well finished, and in every way a good, serviceable thimble. On account of these things it costs about twice as much as many of the ordinary sterling silver thimbles on the market.

The thimbles are engraved in different patterns, but this cut represents them all quite well. Guaranteed to be as represented and to give satisfaction or money refunded.

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FARM AND FIRESIDE, Springfield, Ohio

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FARM AND FIRESIDE, Springfield, Ohio

# Rain and Shine in New York

BY FRANCES BENNETT CALLAWAY

"Where the wind's a-blowin' up across the hay,
And the hurrying people go,
Where the lights along Broadway
Make it all so bright and gay,
With a kind o' homelike feeling, don't you know.
From the Battery to the Park,
From the Hudson to the sea,
There's a kind o' sort o' something, ain't no other town that owns,
And little old New York is good enough for me."

On a gray, rainy morning your home letter was delivered by the postman with such a ringing and whistling at the door as if he knew all the joy and delight it would bring to three country girls, who can here see nothing but brick walls and chimney-pots through lace-curtained windows. Did I say nothing but brick walls and chimney-pots? Let me correct the error. On the very top of the home for nurses we can see the boxes of a roof-garden, where a little later thrifty plants will be looking up against the clouds, and tender vines will be trailing over the balconies. Next to the nurses' home a great public-school building has on its roof a playground for children, carefully protected around the sides and overhead with high wire netting. Our boys at home would consider it poor fun to play tag or ball on top of the house caged in with wires; but to these city children, who do not know about the breath of the meadow or the chirp of a robin, it means a great deal to have this playground so far above the ground, where they can breathe pure air and see the clouds and sky.

We are in a quiet, unfashionable boarding-house kept by kindly people in that old-time and formerly aristocratic part of the city between Stuyvesant Square and Grammercy Park. A number of hospitals are clustered in this quiet neighborhood, and the new maternity hospital, with its babes sculptured in marble on the facade, promises to be the finest in the city.

Overlooking the flower-beds, fountains and pleasant greenery of Stuyvesant Square is the Woman's and Children's Infirmary, founded by that brave woman, Dr. Maria Blackwell. Here we were much interested in a ward for babies, which is just now packed full, the tiniest one being in an incubator, where it is thriving finely. The other nestlings are kept in wire-netted baskets, supported at a convenient height, so that the nurses can take the babies without stooping as to a bed or cradle. Each basket, tied with blue satin ribbons, has its own tiny pad, sheets and blankets, which would be suitable for a good-sized doll. At regular hours the babies are taken out and carried to their mothers to be fed, while little tags insure that each birdling gets back into its own nest.

The tables in this hospital are of glass, the walls and floors tiled, and the whole kept with such spotless cleanliness that the doctors say it is a continual object-lesson to the mothers who are brought here. They can no longer live contentedly in dirt and filth, and when sent away begin to scrub, clean and brighten up things in their own homes.

Another spotlessly clean place we found in the Seaman's Friends' Mission, down on the waterside. Here Christian people have opened a commodious reading-room, where gospel-meetings are held or music or lectures are provided every evening to save the poor sailor boys from the temptations of the saloons. The fact that one saloon alone on the waterside has in a few years gathered up fifty thousand dollars of the sailors' earnings shows the need there is to shelter them. A great effort is being made to obtain funds sufficient to build a sailors' home, where they can be provided with food, lodging and bodily comforts, as well as spiritual help and advice.

From the Seaman's Mission we turned to that grand steamer the Oceanic, which happened to be lying at the dock near by. From the decks of this immense steamer we could look directly out on the gray, misty sea and watch the white gulls dip over the green waves until it seemed as if we were taking an ocean voyage. It would have made our dairymen glad to see the loads and loads of American cheese that were swinging into the hold. Mary Ellen, that scrupulous housekeeper, was rejoiced with the "shipshape order" found everywhere. The decks were scrubbed to paralysis, like Charles Lamb's table-legs; the brasses were winking with brightness, the state-rooms had beds made up in the daintiest fashion, and even the two sailors washing greens were doing fairly well, which shows that men can learn to do housework if they are inclined to.

One sunshiny afternoon we glimpsed into the rooms of an industrial school where the cookery of the little girls was on exhibition. Such appetizing jellies, cakes and puddings there were, to say nothing of three kinds of bread, which surprised even Mary Ellen! The kitchen-garden class of little girls in caps came in to music while we were there, and, as a teacher struck the right chord, sat down at the low table prepared for them. Opposite each little girl was a box of little dishes, which was opened, and neatly folded napkins spread out for table-cloths. Accompanying their work with a song giving all needed rules, these girls now set their miniature table-cloths perfectly for tea. Next a brigade of girls in caps and long aprons, with brooms tied with red ribbons, came singing cheerily as they swept away invisible dust and cobwebs. These were followed by a company of kitchen-gardeners with servers, and as the ladies poured tea they passed it to the company in the prettiest and most ladylike manner. I say ladylike advisedly, for the word "lady" originally meant "loaf-giver."

We were even more interested in a cooking-school for girls in a down-town mission. Here the little girls who had done the best work in the sewing-class were rewarded with tickets to the cooking-class. In this class we found little girls from nine to twelve years of age making tea-biscuit, bread-pudding, custard and lemon pudding. One was appointed housekeeper, and her work was to bring out from the cupboard all needed provisions for the other girls, who were set to work in twos. After the dishes were fairly started a different girl was appointed housekeeper, so that the first little housekeeper might have a share in the fascinating work of mixing tea-biscuit.

"Oh, dear, you will never get that done if you don't work a little faster!" said the teacher to the little cook who was so interested in making the islands of meringue on top of the pudding all of a size. "You must put it on like this, and this, and this."

Within an hour everything was done, only the tea-biscuit being a little late. Then the company sat down to eat the dainties, and that was the jolliest fun of all.

The day we went down to the Stock Exchange it poured, if not cats and dogs, at least puppies and kittens, and you should have seen the jam on Broadway—trolleys, drays, horses, umbrellas—it was something frightful! One dear lady in our party did not open her umbrella, not even though the rain poured; but lifting it over her head, was waving it frantically in defense over the nose of a high-headed but very peaceful white horse, which was smiling—if any horse could smile—as Mary Ellen and I looked back. The sidewalks were covered with slimy mud, everyone was in a hurry, and umbrellas bobbing to and fro took up so much room that some folks who did not admire being jostled just walked out in the street. Mary Ellen hustled us along lively, but when we came to the corner where the Stock Exchange ought to be it wasn't there. However, Mary Ellen wasn't going to give up, and after inquiring and wandering a little further the great, massive building loomed up before us dark and forbidding in the rain.

Once inside the roaring fairly frightened us, and we were anxious, of course, to see what it was all about. As we could not go on the floor without paying from forty to seventy thousand dollars for a seat, we had to content ourselves by going up in the balcony and looking down upon this great maelstrom of excited men waving and yelling around a lot of white posts like mad. The floor was strewn with torn white paper until it looked as if there had been a fall of snow; telegraph and telephone operators were busy, messengers running, and on the opposite wall slides opening and shutting gave as by magic the rising prices of stock every moment. Everything seemed rising, but you know there has been unusual excitement on the Stock Exchange lately, and the booms have been simply tremendous. One day there was a tumble to shake out the little dealers, and one man hearing of it dropped dead.

In the Cotton Exchange we also found the men yelling at the top of their voices; but there were not so many of them, and seated around a ring in camp-chairs they appeared to be playing a big game, which no doubt they were.

From the Cotton Exchange we started for the old church on John Street, Mary Ellen taking the lead and the rest of us following through the pouring rain like a flock of geese. It was slippery, rainy and uphill all the way, and I wished several times I had not added an uncertain bag of hot peanuts to my other worries, for a damp paper bag in the rain is liable to give out any minute. While getting the peanuts I lost sight of the very last couple in our party, and rushing on in wild haste to overtake them I nearly upset two men coming as hurriedly from the other direction. One, however, managed to get out of the way, and the other saved his life by scooting under my umbrella.

Coming into John Street Chapel we found the room nearly filled with business men, who had gathered here in the noon hour to wait humbly before God. After the wild, greedy tumult of the Stock Exchange the hush and calm of this holy place, where these earnest, thoughtful men in their every-day clothes were gathered because they were hungry for spiritual bread, impressed us with the greater reality of things invisible, and we, too, listened humbly as the leader read from the Good Book and talked with us of those who "shall abide under the shadow of the Almighty"—not for a few hours on a rainy day, but forever.

## "SHE GAVE ME, AND I DID EAT"

In time of local disaster or domestic calamity man has ever been prone to discover "a woman in the case," "The woman Thou gavest to be with me, she gave me of the tree, and I did eat," furnishing a most unhappy precedent.

The human disposition in the early centuries and the family joys and sorrows seem strikingly similar to those of to-day. Abraham was filled with jealous fear on account of his beautiful wife; Isaac's wife was chosen for him and brought to him, and they lived happily, though their daughters-in-law were a source of such grief to them that Rebekah declared life would be a burden if Jacob should marry a daughter of Heth. We have an occasional Jezebel and far too many Delilahs, though the courageous Esthers and consecrated Hannahs are not wanting. All modern romances portraying fidelity, love, self-sacrifice and virtue rewarded pale before the beautiful story of Ruth, while Job's wife was of no earthly account in time of trial and trouble. The busy, thrifty Martha is in country and town, and the devout Mary is often with her.

One would naturally expect the first man created in the image of God to be endowed with noble qualities of mind and heart; so we stand dismayed before the contemptible unmanliness of his excuse and the base ingratitude of the reflection on the Creator contained in "the woman Thou gavest," etc., and are curious concerning Eve's feelings on this occasion. "I have married a wife," says the man in the parable, "therefore I cannot come" to the feast. There is no uncertain note there. The fascinations, the inconsistencies or temper of the wife, or possibly all combined, prove a greater obstacle, a more powerful hindrance to a godly life than land or oxen. Ah, "the woman—she," what a record of calamity has been hers through all the ages!

Vesta C. Turner.

## A HOME LIBRARY

Books are treasures. One who so considers them can in this day add one by one to his or her collection until a goodly number are possessed.

A word as to buying books. With all due respect to them, there are two men from whom I seldom buy a book. These are, first, the book-agent; second, the local dealer. Why? The most simple reason in the world—I cannot afford it. Membership in a library association enables me to buy books thirty per cent less than I would pay for them if purchased of our local dealer. I have to pay transportation charges from Chicago, but that leaves me a wide margin. As to the book-agent, when he assures me that I cannot buy his subscription book at a cent less than he offers it I cheerfully agree with him. He forgets how many other books have been published. Among the several thousand that I especially want I can find a place for all the money I can afford to use in this way.

Every family needs a good dictionary and an atlas. If an encyclopedia can be added to these there is the beginning of a reference library.

History comes next. Should there be but one history, let that be a good one of the United States. Next to this I would place a general history. If it can be afforded, Weber's "History of the World" is excellent for this purpose. Swinton's or Barnes' school histories, while not taking the place of the above-mentioned, are excellent. Of other countries, a history of England would be my first choice. Green's is considered by critics as authoritative and readable. The "Stories of the Nations," published by Putnam's, are fine. The language is simple, and while the story of each country is as fascinating as a romance the accounts are authentic.

The taste of the family for whom the library is being selected must decide concerning works of science, essays, biographies and travels. To me Emerson's essays are worth their weight in gold. Many more may be added to these. For the general reader there are Drummond's books, and those of Maibie, Lowell and Ralph Waldo Trine. Ruskin is also a delightful essayist, and Carlyle's honest bluntness is a good tonic. Remember, these books must be studied; skimmed over lightly they will be uninteresting and productive of little thought.

Concerning biography, select the lives of the men and women who seem to you worthy of your admiration and respect. You will get better acquainted with them through the account of their lives. Your boys will delight in Washington, Lincoln, Grant and Garfield. Teach them to also admire Longfellow, Edison, Clara Barton, Frances Willard and the heroes of the Old World.

Do not forget poetry. If you can read and enjoy Shakespeare, be grateful. To read poetry appreciatively is a heaven-bestowed gift as surely as is the power to write it. While this is true, nearly all possess the first-named gift in some degree, and, like all other mental attributes, its growth is in proportion to its use. If the "Bard of Avon" wearies instead of interesting you, grow up to him. Read Scott, Longfellow, Field and Riley.

When you have selected and purchased your books you have only begun. Read them, study them, read them aloud in the home, mark them, re-read your favorite volumes. Discuss them not only with the person whose taste is much like your own, but also with the one who views them from a different point. Thus will your books become in the only true sense your very own, a part of your mind and thoughts.

Hope Daring.

## RECOMPENSE

BY GEO. KLINGLE

We are quite sure
That He will give them back—bright, pure and beautiful;
We know He will but keep
Our own and His until we fall asleep.
We know He does not mean
To break the strands reaching between
The Here and There.
He does not mean—though heaven be fair—
To change the spirits entering there, that they forget
The eyes upraised and wet,
The lips too still for prayer—
The mute despair.

He will not take the spirits which He gave, and make
The glorified so new
That they are lost to me and you.
I do believe
They will receive
Us—you and me—and be so glad
To meet us that when most I would grow sad
I just begin to think about that gladness
And the day
When they shall tell us all about the way
That they have learned to go—
Heaven's pathways show.

My lost, my own and I
Shall have so much to see together by and by,
I do believe that just the same sweet face,
But glorified, is waiting in the place
Where we shall meet if only I
Am counted worthy in that by and by.

I do believe that God will give a sweet surprise
To tear-stained, saddened eyes,
And that His heaven will be
Most glad, most tided through with joy for you and me,
As we have suffered most.

God never made
Spirit for spirit, answering shade for shade,
And placed them side by side—
So wrought in one, though separate, mystified—
And meant to break
The quivering threads between. When we shall wake
I am quite sure we will be very glad
That for a little while we were so sad.

## LOVE BEYOND THE GRAVE

SONNET I.

I wonder if I were shut out from heav'n
  Whilst you had entered in to see his face—
  The perfect Godhead, full of truth and grace—
And heard his words, "Thy sins are all forgiven,"
And I, you lov'd, in outer darkness driv'n,
  Should call your name from that abysmal place,
  Where lost souls, who have fail'd in life's sore race,
Weep in the blackness, soul from body riv'n;
I wonder if that cry would cross the sphere
  And sadden you (if such a thing could be),
Like earth's fierce discord breaking on your ear
  In midst of heaven's pure, high melody!
Ah! lest my voice should jar the music, dear,
  I would be still—such grace is left to me.

SONNET II.

But if I stood within, before God's throne,
  Hearing the harpers by the crystal sea,
  And knew that you might never come to me,
But wept without, wand'ring in darkness, alone,
Would heaven be heaven to me for aye alone?
  Ah, no; dear heart, if that should ever be,
  And God should part us by his dread decree,
My hymn of praise would sound one hollow moan.
I would draw near, and falling at his feet
  Would sob your name, where tears are wiped away,
Praying for that which made this earth so sweet,
  The love he gave to light life's little day;
And could it be that from the mercy's seat
  The very god of love would answer nay?

—Lilian Robinson.

## SOME FACTS ABOUT ROSES

"FLOWERS," says Ruskin, "seem intended for the solace of ordinary humanity; they are the cottager's treasure, and in the crowded town mark as with a broken fragment of rainbow the windows of workers in whose heart rests the covenant of peace."

Shakespeare says, "Of all flowers methinks the rose is the queen of flowers." Anacreon speaks of the "resplendent rose, the flower of flowers." Tourists tell us that Florence, in Italian Firenze, meaning flowers, is appropriately named. The profusion of flowers is one of the chief attractions of the city. Garlands of roses are vended about the streets in midwinter for inconceivably low prices. A peep at acres of roses under glass gives one but a slight conception of the gigantic growth of the rose traffic here in America.

The finest roses are of Oriental origin. In Persia and Cashmere they bloom everywhere in riotous disorder, hiding the poverty of the peasant's cottage and adding beauty to the king's palace. The roses of Persia are musk-roses. Eastern fables tell of the rose bursting into flower at the first notes of the bulbul, or nightingale. The earliest name of Palestine, Suristan, signified land of roses, according to some historians.

The Persian prince, we read, carpets his floor with roses and strews the paths leading thither with rose-leaves in honor of distinguished guests. The Hebrew high priest wore a crown of roses when offering certain sacrifices. The Greeks loved roses, garlands of which adorned their favorite statues. The ancients seemed to feast on roses and to revel in them. The Spanish Moors cultivated them.

Roses were brought from Egypt to Rome in great quantities and at great trouble and expense. The Roman gardeners invented greenhouses heated with pipes of hot water. Winter roses then became so common in Rome that Martial boastingly exclaimed, "Send us corn, O Egyptians, and we will send you roses in return!"

The term sub rosa (under the roses), according to one author, had its origin in a political intrigue carried on between Pansanias and Xerxes in 477 in a building whose roof was covered with roses. In more modern times the French peers saw to it that the palace was decorated with roses during the sitting of the French parliament in the months of April, May and June, and that each member was presented with a rose. In the Middle Ages the cultivation of roses was restricted by a royal license in France.

The perfume of roses reminds us that Queen Cleopatra always bore about her the scent of roses. She paid sixty thousand dollars for roses with which to carpet the floor of her banqueting-hall on one occasion. We remember, too, that in Persia the beautiful Princess Nour Mahal, while sailing in her fairy boat on her rose-water canal with the great Mogul, noticed a foam floating on the surface of the water. This was found to be the essential oil, attar of roses, separated by the heat of the sun, and was the beginning of a great industry. We are surprised to learn that there are more than seven thousand varieties of roses.

We linger long over the white ones. All roses are said to have been white before the breath of love animated the world. We recall many pretty legends of the taking on of deeper tints. One that Eve in the "morning hours of Eden" pressed one to her lips, from which they took their "vermeil hue." A Persian legend tells of the nightingale stabbing the rose with a thorn because of his hopeless love for her. As she expired her life's blood tinged all roses with an exquisite glow.

Here is a pretty story about the Cherokee rose. A chief of the Seminole tribe was taken prisoner by the Cherokees, and doomed to the torture. He fell sick, and was nursed by the beautiful daughter of his Cherokee captor, who loved the young chieftain and urged him to escape from certain death. When the moment came he refused to go unless she would go with him. She consented. She had not gone far when she was filled with "sadness and soft regret" at leaving her home and friends. She begged to be allowed to return for some moments. She retraced her steps and broke a sprig from a white-rose bush which climbed the pole of her father's tent. This she tenderly bore away with her through the wilderness to plant at the door of her new home in the land of the Seminoles. Thus was the Cherokee rose transplanted to Florida soil.

The German girl wears a white rose at her confirmation. In some parts of Tyrol the young man proclaims his betrothal by wearing a rose. In the valley of Engardine, in Switzerland, a young girl presents a white rose—the rose of innocence—to the released prisoner who has been proven guiltless. Here we see the beautiful yellow rose, the Mme. Bernard, the daughter of the Mme. Falcot, which was first presented in 1858. The yellow rose, a late production with us, was said to have been known to the Moors a very long time ago, in whose gardens blue roses are said to have been seen. We often see the red and the white roses blooming side by side in love and harmony.

In 1450 a few noblemen were discussing the rival claims to the English throne in the Temple gardens. They were interrupted by the entrance of Richard, Duke of York. Richard was anxious to ascertain how many would uphold his claim. "If you are reluctant to tell me your opinion in words, why not give me a sign?" he said. "Let my friends follow my example and pull a white rose." Somerset proposed that the friends of Henry of Lancaster should gather a red rose. Notwithstanding the agreement that the party with the greatest number should win the day; notwithstanding later supposed reconciliations between the factions, the "Wars of the Roses" broke out and raged for thirty years. By the marriage of Henry VII. of Lancaster and Elizabeth of York peace was proclaimed, and the blended roses became Great Britain's national flower.

The dogrose was supposed to cure hydrophobia. The "medicine-men" of olden time had faith in the curative qualities of the rose. Chinese wear bags of rose-leaves to keep away evil spirits. A book on roses appeared in the seventeenth century which, among other things, told of the phoenix-like resurrection of the rose, called the "Imperial Secret," because Emperor Ferdinand III. purchased it from a foreign chemist. The material, obtained by a long and tedious process, being placed in a glass vessel with a certain quantity of pure dew forms a blue powder from which, when heat is applied, there springs a stem, leaves and flowers—a perfect plant—from its own ashes.

EVANGELINE.

## "THE GO CHAPEL"

"Go ye into all the world and preach the gospel to every creature."

The writer became very much interested last year in a unique church. New York has its "floating Bethel," which worthily fulfills its great mission. "The Go Chapel" is also a movable church, but is built on wheels. It is situated on Cononicut, one of the Narragansett Islands, and is not far from Newport. In the summer the chapel is located at Cononicut Park, a summer resort. When the season closes the park is nearly deserted; then the church is moved to a larger field.

There are but few churches on the island, and the chapel thus meets a great religious need. It is greatly appreciated and also largely supported by the guests at the hotel.

When the chapel is stationary its mode of transportation is concealed, but it is literally built on wheels—a wagon. Eight to twelve yoke of oxen are required to draw it, and its removal forms a picturesque sight worthy of the brush of a talented artist.

This church on wheels is appraised at three thousand dollars. The exterior is painted a soft, restful gray, typical of the peace to be found within its sheltering walls. High above the belfry a cross points heavenward. A flight of steps leads to the entrance. The chapel will seat about one hundred people. It is a happy, pleasant and handsome religious home. The interior decorations are fine. The rafters are artistically left exposed. There are several attractive stained-glass windows. The altar, prayer-desk and pews are finished in oak. There is a small but excellent organ.

This church was consecrated as "The Chapel of the Transfiguration." It belongs to the Protestant Episcopal Church and the diocese of Rhode Island.

Wherever the earnest worshipers gathered there from many lands on one August Sabbath morning may wander, they will certainly long remember the wisdom that gently fell from the lips of the noble-hearted rector of the Chapel of the Transfiguration.

In the beautiful words of the familiar response, "Good Lord, have mercy upon us, and write all these, thy laws, in our hearts, we beseech thee." ADELE K. JOHNSON.

## NEW DESIGNS FOR TATTED DOILY

Make a ring of eight doubles, three picots, separated by two doubles, eight doubles, and close; repeat three times. Cut the thread, and tie securely. This forms a small square. Make the four rings close together. Join the first ring of the second square by the third picot to the third picot of one of the rings of first square. Join second ring by the first picot to the first picot of the next ring of first square. Leave the two following rings unjoined. Join first ring of third square by the third picot to the third picot of one of the unjoined rings of preceding squares at the side. Join the next ring by the first picot to the first of next ring in preceding square. Leave next two rings unjoined. Join first ring of fourth square by the third picot to the third picot of the inside unjoined ring of the left-hand square; join next ring by the first picot to the first picot of next ring in square, and join by the third picot to the second picot of next square. Join the third ring of the fourth square by the first picot to first picot of the next ring. Leave the fourth ring of the fourth square unjoined.

These four form a large square, in the center of which are four free picots. Join the large squares as illustrated. Fill the spaces between the squares in this way: First make a large ring of four doubles, eight very small picots, with four doubles between each one double; close ring, using two threads; * make a chain of eleven doubles, join to the two rings that join two squares, taking one picot of each ring, eleven doubles, and join to first picot of center ring. Make next ring of eight doubles, join to the next two rings of square, taking one picot of each as before. Repeat from * around, eight chains in all. If preferred the spaces between the squares may be filled with lace-stitches.

This design may be used for children's dress-yokes, cushion-covers, tidies, etc.

MRS. J. R. MACKINTOSH.

## WHEN MOTHERS CEASE TO RULE

Children may carve out their own fortunes, act on their own responsibilities; but a good mother, in laying down the sceptre of absolute sovereignty, never loosens her hold on the rod of wise guidance and counsel. This was one of the most important thoughts presented at the mothers' club this afternoon, and there were many discussions as to the proper time in the life of the child for the mother to learn this hardest of lessons; for, as one remarked, "The time when the young birds first try their wings for flight is always a critical one for the family nest." And in the controversy that followed the topic was discussed from the standpoint of the children in assuming authority, as well as that of the mother in laying it down. One paper read was particularly pertinent.

"To step from the throne of authority; to let the youngsters take the bit between their teeth, and begin to choose for themselves their dress, their interests, their friends, their occupations, and, most serious step of all, their life-partners—all this requires, to do it gracefully, the wisdom of the serpent and the harmlessness of the dove. Yet here is the most decisive moment in the destiny of mother and child, for the manner in which a woman relinquishes the right to command, and retains the privilege to counsel, decides whether she has gained or lost her child.

"We all know the mother who solves the question easily and disastrously. Her daughters and sons early become young ladies and young gentlemen; their word is law in the house; they are permitted to be, do and suffer what their own sweet wills dictate. It is evident that the reins can no longer lie in the maternal hands; to guide wisely is difficult; to give the young steeds their heads is easy, and soon between mother and children a great gulf is fixed.

"Of the opposite stamp is the determined woman whose children are not allowed to ever 'stay all night' away from home; who chooses for her own grown-up daughters their clothes; who mortifies them in public by reproofs and admonitions, and who requires her sons, arrived at man's estate, to account for their goings out and their comings in, as if they were still in their knickerbockers. The gulf exists here as in the other case; the bridge which appears to cross it is built of ropes of sand which will not bear the slightest finger-touch.

"Scylla and Charybdis! But a clear course can be steered of either by the application of that most golden of rules, 'Put yourself in his place.' Remember how galling is restraint to eager, hopeful, ambitious young people, and be chary of such don'ts as are not necessities. You will have to let them make mistakes; that is how you learned yourself. All human longings spake in the outburst of the young girl whose mother refused to let her see the circus, having gone herself and seen the folly of it. 'But, mother, I want to see the folly of it, too!'

"The young people themselves, at this transition stage, will not be conscious of the mother's mental struggle, and will judge unfairly oftentimes. On the other hand, perhaps we do not realize how often with them submission comes with an effort, or insubordination with an after-pang of remorse.

"'To bear, to nurse, to rear,
  To rear, and then to lose'

"seems hard, we must admit, even to us who know that motherhood is synonymous with self-sacrifice. But it ought not to be a case of 'losing' simply because we have ceased to be supreme potentate in the young life which God intended to be lived by its own lights and in its own lines when years of discretion arrived."

And in the general summing up of the subject it was agreed that although the breast of the human mother-bird flutters uncontrollably when the necessity first arises for shifting the sweet burden of caring for her nestling on the eager young shoulders which are all-willing and all-impatient to receive it, the wise mother will find a way of exchanging absolute authority for helpful counsel and mutual confidence. And what is usually considered the mother's hardest lesson—the lesson of "parental abdication"—when wisely learned will bring its reward in a better understanding and higher privileges to both mother and child.

P. W. HUMPHREYS.

## BLUING

Many bluing compounds are composed of iron and Prussian blue, and contact with the alkali in the soap in the clothes precipitates the iron, and rust-spots appear. I have learned that these spots were caused by the iron and Prussian blue. Test the bluing by adding to a small portion a little soda; then heat it, and if it turns red and dark it contains Prussian blue. If when a little nitric acid is added and the mixture is heated it turns yellow and then white it is indigo. These simple tests are valuable, as white clothes cannot be kept clear without the use of bluing. S. E. W.

# HOUSEHOLD

## THE COMING OF NIGHT

BY ADELBERT CLARK

There's a slender red crescent
Hanging low in the west,
With a glimmer of kisses
On the water's smooth breast.

And the song of the evergreen
Is so clear on the breeze
It reminds us of autumn
Whisp'ring low through the trees.

While the shadows of nightfall
Are deepening their shade
Through the long, tangled grasses
Where the butterflies played.

## AN UNAPPRECIATED CULINARY TRIUMPH

"THAT girl knows no more about boiling potatoes than she does about writing poetry!" exclaimed mama, indignantly, when the potato that had presented a fair outward show of mealiness proved to be solidly soggy within.

"I have told her over and over again," said sister Amelia, "but she insists that they are such poor potatoes that no one could boil them any better. I believe she is right about them, for I boiled them myself to-day, yet you see they are hard in the center, though the outside is done to death."

"Of course, if you could not do them any better than that, no one can be expected to," replied mama, who holds it among her firmest beliefs that my elder sister was born with an intuitive knowledge of everything that pertains to good housekeeping, while no amount of instruction or experience would avail to give me—her visionary and unpractical younger daughter—a working knowledge of the simplest facts of household economy.

Now, while the discussion of the potato question was going on, I had been recalling the rules for potato-boiling that I had once heard laid down by a notable housekeeper, on whose table potatoes always outwardly appeared like snowflakes, yet so mealy to the very heart that they crumbled under the touch of a fork, but were never "boiled to pieces." I believed I could do it, and wished that chance might put it in my way to make the experiment.

Chance, in the guise of a toothache, took our unskilful maid to her home for a Sunday; mama and Amelia wished to go to church, and I stayed at home to keep the house safe and prepare the dinner—a task which they considered might be intrusted to me without great risk, since there was a cold joint for dinner, the dessert had been prepared the day before, and the salad could be dressed after their return from church.

"There's nothing for you to do," was mama's parting injunction, "but to put that dish of macaroni in the oven and cook the potatoes. Boil them in the skins (they'll go all to pieces if you peel them), and mash them. It is the only way they are fit to eat."

I had the kitchen to myself, and liberty to make my experiment. I selected my potatoes of uniform size as nearly as possible, pared them thin and smoothly, and set them over the fire. When they had boiled about twenty minutes I poured off the water and filled the pot again with cold water, remembering, as I set the pot over the fire again, how the "notable housewife," whose knowledge of cookery was more extensive than her familiarity with the laws of physics, had told me that this part of the process was designed to "drive the heat to the heart of the potato." The object of it really is to check the boiling of the surface, while the center retains its heat and continues the process of softening. Thus the surface, which would otherwise be done long before the center, waits for the reheating of the water, and when that comes again to the boiling-point both inside and outside go on cooking equally.

When the second water had boiled about twenty minutes I poured it off. The external appearance of my potatoes was all I could ask. But I dared not trust to outward appearance. I had never before boiled a potato, and feared a disappointment might be concealed beneath that fair exterior. So I carefully probed one with a fork, which met with no resistance, broke it open and found it dry and mealy through and through.

Selecting two of the most tempting ones, I left them in the pot to keep warm, meaning to serve them whole for mama—a little treat for her, since she likes them best so, and had not seen a good plain-boiled potato since Delia entered her kitchen. I then proceeded to mash the rest.

I knew that I had succeeded where my superior elder sister had failed, and my heart swelled with the anticipation of my triumph as I heard the sound of voices overhead and then mama's step descending the stairs.

She glanced around in too evident expectation of finding something wrong.

"Did you remember to put the macaroni in the oven?" she asked.

"Yes. It is done," I answered.

"The potatoes won't be fit to eat after mashing in a cold dish!"

"I've warmed the dish," I explained; "it is almost too hot to touch."

"That's the way the china is ruined, making it so hot. You didn't boil as many as I told you; that is too small a quantity for three persons."

"But I have two more in the pot that I saved out for you. They are done just as you like them." I tried hard to keep down the tone of exultation in my voice.

"It is impossible to boil these potatoes so that they are fit to eat that way!" she exclaimed; and seizing the pot, without so much as a glance at my beautiful, snowflakey potatoes, plunged in a pitiless spoon and crushed them to a paste.

Since that day all my experiments in cookery have been made away from that home.

CAROLINE K. HERRICK.

## GREENS—GREEN-AND-WHITE DECORATIONS

The table was profusely decked with ferns; every dish rested on a mat of greenest of green moss, at each plate were tiny pots covered with white crape-paper and filled with growing ferns, while the bonbons, olives and almonds were in green-enameled baskets lined with white waxed paper. Nothing could have been more delicious than the edibles, consisting of spinach, asparagus, dandelion and lettuce. I will give receipts for a few of the dishes served, hoping they may be helpful to the housekeepers who are on the alert for new ideas in the culinary line:

CREAM OF SPINACH SOUP.—Wash in several waters two pounds of spinach; remove the stems, place on the fire with one half cupful of water, cook until tender, chop fine, and save the water to color the soup. Return to the range in a double boiler with two cupfuls of warm milk. Mix to a paste one tablespoonful of butter and two tablespoonfuls of flour; mix with the soup, and stir until slightly thickened, then turn the mixture over two well-beaten eggs. Serve in cups with whipped cream on top.

POACHED EGGS AND CREAMED ASPARAGUS.—Cut rounds of bread with a cake-cutter, toast a delicate brown on both sides, sprinkle with a thin layer of grated cheese, and on every slice carefully arrange a poached egg. Place as a border on a platter, and fill the center of the dish with two cupfuls of asparagus cut into lengths, cooked until tender, then stirred into cream sauce made of two tablespoonfuls each of butter and flour mixed and stirred into milk until sufficiently thickened.

RHUBARB AND QUINCE MARMALADE.—Open a quart can of quinces, chop into tiny bits, mix with one and one half pounds of finely cut rhubarb, the candied rind of three oranges, one lemon and a little ginger; cover with the quince-juice, add two cupfuls of sugar, and cook until thick. When cold put into air-tight cans. The rhubarb and quince mixture is very nice for sweet sandwiches.

DANDELION SALAD.—After looking over carefully a sufficient quantity of dandelion-leaves, parboil them, drain in a colander, rinse in hot water, and put into a kettle with fresh boiling water; cook until tender, again drain, turn into a chopping-bowl with eight hard-boiled eggs and two stalks of celery, and chop all together until rather fine, adding melted butter, salt, pepper, a little horse-radish and one teaspoonful of onion-juice. Trim a salad-bowl with crisp lettuce-leaves and heap the salad in the center, garnishing the top with slices of hard-boiled eggs.

RHUBARB JELLY.—Soak two tablespoonfuls of gelatin in one half cupful of water. Wash, peel and cut into half-inch pieces one and one half pounds of rhubarb; put into a kettle with pineapple which has been cut into tiny bits, and two cupfuls of granulated sugar, cook until tender, remove from the fire, and add one teaspoonful of lemon-juice and the dissolved gelatin. Strain, and pour into individual molds, first chilling them with cold water, and place on ice to harden. Serve with soft-boiled custard dotted with strawberries.

RUTH VIRGINIA SACKETT.

## FRITTERS

While fritters can hardly be recommended as suitable food for dyspeptics, yet when properly made they do not possess the unwholesome properties usually ascribed to them; and there is no reason, if eaten in moderation, why they should be hurtful to people in health. Most assuredly they are toothsome dainties, and no housewife should fail to acquire the art of making them.

To the economy-loving woman fritters are a positive boon, from the fact that either fruit, vegetables or flesh may enter into their composition, thereby making it possible to disguise under a new name and in a new guise many a "left-over" dish. Further, the ease and rapidity with which they may be prepared and cooked makes them valuable as an emergency dish. They may be served at either meal of the day as the substantial dish, au entree or a dessert, according to the materials which form the base of their composition.

Fritters to be light must be made quickly, beaten thoroughly, and cooked at once. The yolks of the eggs must be beaten until thick and smooth; the whites (which should be folded in just before frying) must be stiff and dry; the salt and baking-powder, if any are used, must be sifted with the flour. It is better not to use sugar in the batter, as it tends to make it heavy. A thin batter will give better results than a stiff one.

The most important point to be noticed in fritter-making is the preparation of the deep fat. It must be sweet and fresh (beef suet tried out and clarified is better than lard) and brought slowly to the right temperature, which is three hundred and seventy-five degrees, and may be recognized by the blue flame or smoke rising from its surface. To test the heat drop in a teaspoonful of the batter; if it rises quickly to the surface and soon browns the cooking may proceed. To have the fritters of a uniform size drop the batter in even spoonfuls. Take them up the moment they are of a golden brown, using a wire spoon for this purpose. Drain in a colander. Serve very hot on a napkin.

A very good proportion for the batter is two eggs, one half pint of sweet milk, two cupfuls of flour and one teaspoonful of salt. Meat-fritters are made by dipping thin bits of the meat in the batter. Chop or slice fruit very thin for fruit-fritters.

RICE-FRITTERS.—Boil one cupful of rice in one pint of milk until the milk is all absorbed. Remove from the fire, and stir into it the yolks of three eggs beaten until smooth, and two tablespoonfuls of butter. When cold add the whites of the eggs. Fry a golden brown, and serve with lemon sauce.

ALTONA FRITTERS.—Pare and core several large, well-flavored apples. Slice in rounds, spread upon a flat dish, and squeeze over each slice a little lemon-juice. Prepare a batter made in the proportion of eight eggs to one quart of rich milk and one and one half pints of sifted flour. Dip the slices of apple twice into the batter, and fry. Dust with powdered sugar and cinnamon just before sending to the table. Peaches or pears may be used instead of apples.

WINE-FRITTERS.—Beat six eggs until light, then stir into them, a little at a time, six tablespoonfuls of sweet wine and the same of powdered sugar. Split a sufficient number of milk-biscuits, soak five minutes in sweet wine, then drain on a sieve. Dip each piece of the biscuit into the egg mixture, then fry a delicate brown. Serve with powdered sugar.

CREAM-FRITTERS.—Make a batter of one pint of milk, one and one half pints of sifted flour, six eggs, two teaspoonfuls of salt and one pint of rich cream. Before serving dust with sugar and grated nutmeg.

CORN-MEAL FRITTERS.—Beat eight eggs until very light. Stir the yolks in turn with twelve large tablespoonfuls of corn-meal into one quart of rich milk, and add one salt-spoonful of salt; beat the whole very hard, then fold in the whites of the eggs. Drop large spoonfuls into the batter. Serve with molasses.

SWEETMEAT-FRITTERS.—Cut a large, freshly cooked blood-beet into small pieces. Pound in a mortar until the juice is extracted. Stir enough of this into one quart of milk to color it a deep red. Beat seven eggs until light, and stir them alternately with one and one half pints of sifted flour and a little salt into the milk. Fry a light brown. Before serving dust with sugar, and on the top of each fritter put a bit of strawberry preserves or other sweetmeat.

The above receipts will serve as suggestions to the housewife, and will give her some idea of the possibilities of this toothsome dainty.

KATHERINE E. MEGEE.


# CURED BY A MIGHTY POWER

**All Chronic Diseases Cured by a System of Treatment Originated by Dr. J. M. Peebles, the Grand Old Man of Battle Creek.**

Dr. Peebles, the grand old man of Battle Creek, in whose brain originated psychic treatment, has so perfected his method that it has revolutionized the art of healing, and it can almost be said that there are no hopeless or incurable diseases. This system of treatment has brought thousands back to health after they had been pronounced hopelessly ill by the very best local physicians. His cures have been proclaimed phenomenal by the many thousands who have had a chance to watch the near neighbor, friend or relative pronounced at death's door by the local doctor, brought back to perfect manhood and womanhood by this

DR. J. M. PEEBLES

eminent doctor and his associates. These wonderful cures are brought about through a system of treatment originated by Dr. Peebles himself, which is a combination of mild magnetic remedies and a grand science, making the strongest healing combination known. This method has been so perfected by the doctor and his associates that any one may use it in the privacy of their own home without detention from business or the knowledge of any one. Mrs. J. W. Anderson, of St. Johns, Washington, suffered for years with pain in the ovaries and uterine weakness; she was entirely cured by this treatment. Mrs. C. Harris, of Marionville, Pennsylvania, says she cannot express too much gratitude for the results received from Dr. Peebles' treatment for falling of the womb and general exhaustion. George H. Weeks, of Cleveland, Ohio, sends heartfelt thanks for restoration to health after suffering from nervous prostration and insomnia for years; he says he now enjoys excellent health and restful sleep every night. G. D. Young, of Winner, Oregon, says: "I bore about my body the piteous spectacle of disease, and death stared me in the face. I now thank Heaven I am a well man, and I owe this great victory over disease to Dr. Peebles and his corps of assistants." Mrs. Bell B. Bond, of Dunkirk, New York, who was cured of asthma, dropsy, heart trouble and female weakness in a very few months, writes that she recommends Dr. Peebles' treatment to all her sick friends and relatives—in fact, to all suffering humanity. No matter what the disease, or how despondent you may feel because you have been told there is no help for you, there still is hope. Hundreds of women suffering from irregularities peculiar to their sex have been cured by Dr Peebles' methods after being told there was no help for them unless an operation was resorted to. The same may be said of men who are debilitated from excesses and early indiscretions—in fact, any and all diseases yield to this wonderful system. If you are unfamiliar with this treatment, which is annually curing thousands of those pronounced incurable, do not fail to send at once for full information concerning this grand treatment. It costs nothing whatever, and the information gained will be worth much to you. If you are sick and discouraged, do not fail to have the doctors diagnose your case and tell you your exact condition. Just write them a plain, truthful letter about your case; they will confidentially consider the same, send you at once a complete diagnosis of your condition and also literature on this grand system of treatment, together with Dr. Peebles' essay, "The Psychic Science in the Cure of Disease." All this is sent absolutely free. Write to-day. Address Dr. Peebles' Institute of Health, Dept. U, Battle Creek, Michigan.

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# OUR SUNDAY AFTERNOON

## FAILURE AND SUCCESS

He fails who climbs to power and place
Up the pathway of disgrace.
He fails not who makes truth his cause,
Nor bends to win the crowd's applause.

He fails not—he who stakes his all
Upon the right, and dares to fall.
What tho' the living bless or blame,
For him the long success of fame.
—R. W. Gilder, in "Great Thoughts."

## A FIELD OF WIDER USEFULNESS

THE accident, disappointment or failure, as it seems to be, that comes to cut short the career that we had marked out for ourselves may lead us into a field of wider usefulness and greater success. An interesting account is given in the "Missionary Review of the World" of Lieutenant Maury, who rendered invaluable services to the sea-going nations of the earth, but who would perhaps never have taken up the work for which his name is noted had it not been for an accident that crippled him and made it impossible for him to continue his career on the ocean. This is the way it came about:

For many years every sea-captain was compelled to keep a log-book, in which he jotted down every day all facts of interest in his sailings, giving the directions of the wind and the currents, and other similar information. When the log-book was full it was sent to Washington and stowed away among the records of the Navigation Department. Young Lieutenant Maury, after he had been crippled, and so incapacitated for sea duty in the navy, went to Washington, got out the old log-books from the Navigation Bureau, assorted the data from every book, and assigned all the information to its respective block on the ocean map which he was drafting. Thus he discovered the "rivers in the ocean" and the "rivers in the air," making charts by which the sailing-time was reduced from twenty-five to seventy-five per cent, and the expenses and perils were greatly reduced.

At that time it took sailing-vessels leaving New York or like distant ports from forty-five to sixty days to reach the equator. Lieutenant Maury went before the board of trade in New York, and made the startling statement that the trip could be made in eighteen or twenty days. The board, however, was very conservative, and refused to entertain the proposition, but dismissed the young man, who, tired, disheartened and hungry, went across the street to get his lunch at an eating-house. There a brave, clear-headed young sea-captain came to him and said, "Young man, I heard your statements to the board of trade, and they impressed me as true. I own a good ship which is loading to cross the equator. Send me your charts; I will sail by them, and we will test the matter." The Lieutenant thanked him and sent the charts, and sailing by them the captain in his good ship crossed the line in some twenty days.

There is real inspiration in that story of difficulties and discouragements overcome. It is pleasant to know that Lieutenant Maury's services were fully appreciated not only by our own government, but by those of many foreign countries as well.

## BOYS, READ THIS

Idleness is the devil's own workshop, and especially is this true of boys. We never feel sorry for the boy who has to work, even if it be to help make a living for himself and family; but we do pity the boy who has nothing to do and whose parents are able to keep him from having to labor. The boy who may work and get only a stipend of a dollar, or even less, a week is learning habits of industry. It is from the boys who begin early the life of industry that come the successful men of the nation. The boy who waits until he is grown, or until he acquires an education, before he begins to labor or learn a profession is apt to start in life handicapped and outstripped by his seemingly less fortunate competitor who started in ahead of him. It pays a boy better in the long run to work for twenty-five cents a week and learn a trade, with habits of application to business, than to do nothing and be supported at the expense of his parents. Boys, do something, be something.—Gazette.

## A MODERN HERO

When the great Windsor Hotel burned there were many opportunities for the display of courage. Outside the building, undismayed by the fierce flames, dense smoke and toppling walls, brave firemen climbed to the upper stories on their work of rescue, going up from window-sill to window-sill by means of the eighteen-foot scaling-ladders a man can carry in one hand, and descending with insensible or frightened, struggling persons on their shoulders. No wonder the crowds that gathered in the streets held their breath in horror when these men rushed into the flaming windows or made their perilous descent, and cheered as one man when they stepped down to safety.

Inside, too, away from the cheering multitudes, the work of rescue went on. The man in charge of the elevator—a most dangerous place in time of fire—brought down load after load of persons from the upper floors. Finally the police took him by force out of the elevator, but even then he did not run. Thinking he heard the bell ring again he started up for another trip; on the way down the shaft fell in and he was killed.

There is no need of moralizing on the courage of this man, who counted not his own life dear, but gladly laid it down in the effort to save others. Some one was calling him up in that fiery furnace, and he had no thought of not answering the summons. For twenty years he had been employed in humble service in the building, with apparently no opportunity for doing heroic deeds; but he was ready when the opportunity did come, and met it grandly.—Youth's Instructor.

## CONQUERING A LION

An officer of the French army has written a letter to his brother in this country, giving a graphic account of how it feels to look into a jungle-lion's open mouth. The hunter had seen and shot at a superb lion which had made its escape, though the officer felt sure that he had wounded it, and was not disposed to give up the chase. Suddenly on emerging from a thicket he found himself confronted by the lion. He stood about fifty yards away, gazing at his human foe and lashing his flanks with his tail. The officer and his attendant fired, and the beast sprang high in the air and with a roar went straight at them. The cowardly attendant ran away and left his master to his fate. The officer fired twice in quick succession and hit the lion, but he did not fall.

In a second the beast was upon him. He rose to his feet and fired again, full in the lion's face. He saw a frightful, gapping mouth, and then he went down under him. He felt the hot breath on his face, and tried desperately but vainly to clutch the big tawny throat. But suddenly, as if by a miracle, the lion left him. He saw him standing two yards off looking after his fleeing attendant. The officer dragged himself toward his gun, and with rare coolness aimed and fired at the head of the lion. The beast fell dead just as he was about to return and make an end of the hunter. Through badly wounded, the brave young officer is recovering. That is the kind of pluck men need to conquer all the obstacles of life. When once a man's mind is made up to fight the lion of difficulty he must feel that it is a fight to the death. Men who face their lions in that spirit can work miracles in these days. The Scriptures declare that even the devil shall flee from us if we face him with a brave heart.—Current Anecdotes.

## A POINTER FOR YOUNG MEN

Mr. Shaw is a self-made man. Thirty-one years ago, when twenty-one years of age, he left the Vermont farm of his father and went to Iowa, determined never again to see his native state until he had won some measure of success. Seven years later he was practising law in Denison. A score of years after he was joint proprietor and president of two banks and interested in a loaning business, the record of which was but one foreclosed mortgage.

The governor's entrance into politics was brilliant. His name was brought forward three weeks before the convention, and he was nominated on the fourth ballot over a field of ten candidates.

There is one story which the governor takes delight in telling when called upon to speak to young people, for it is indicative of the policy which has characterized his success in life.

While in the banking business he had occasion to hire an assistant bookkeeper. A business man in an adjoining town recommended a young man, and wrote a strong personal letter in his behalf. But below the signature was the following:

"P. S. He plays in the band."

The young man did not get the position.

A few days later, when the future governor met his friend, he said, "Why did you write that postscript? What did you mean by it?"

"I was afraid you'd hire him," was the reply.

"You can do but one thing at a time," concluded the governor, in telling the story. "The man who has time to play in the band hasn't time to be a first-class bookkeeper in a bank.—Saturday Evening Post.

## WHERE TO SAIL

A steamboat was at New Orleans, and a man applied for the vacant post of pilot, saying that he thought he could give satisfaction, provided they were "lookin' for a man about his size and build."

"Your size and build will do well enough," said the owner, surveying the lank form and rugged face of the applicant with some amusement, "but do you know about the river—where the snags are, and so on?"

"Well, I'm pretty well acquainted with the river," drawled the Yankee, with his eyes fixed on a stick he was whittling, "but when you come to talkin' about snags I don't know exactly where they are, I must say."

"Don't know where the snags are?" said the boat-owner, in a tone of disgust; "then how do you expect to get a position as pilot on this river?"

"Well, sir," said the Yankee, raising a pair of keen eyes from whittling, and meeting his questioner's stern gaze with a whimsical smile, "I may not know just where the snags are, but you can depend upon me for knowin' where they ain't, and that's where I calculate to do my sailin'."

There are snags everywhere on which many young people make shipwreck. Bad companions lead many astray. Bad places attract and ruin many. Let the pilot's plan be ours. Keep clear of snags. Sail where they ain't. Where there is anything that would make life a poorer, smaller, less noble and useful and honorable thing than it might otherwise be, keep away from it. It is a snag. It is dangerous. Sail where it ain't.—Christian Standard.

## SOJOURNER TRUTH GETS A RIDE

A law was passed in Washington giving colored people a right to ride in all the street-cars. Sojourner Truth, that wonderful colored woman, was speedily seen on the street holding up her old black hand as a signal to a car to stop and take her on. Conductors and drivers paid no attention to her. Two cars passed, and when the third came in sight she gave three tremendous yelps, "I want to ride! I want to ride! I want to ride!"

A crowd collected, and the car was blocked. Sojourner jumped on board. A great shout arose from the men in the street. The infuriated conductor told her twice to go forward where the horses were or he would throw her out. She sat down among the passengers and told him she did not fear him, for she knew the laws as well as he did. She rode further than she needed to, and finally left the car and said, "Bless God! I have had a ride."

Another day a conductor kept her running a long way after a car till the other passengers complained aloud that it was a shame. When she entered the car at last he came toward her with a threatening gesture to put her off. She said to him that if he touched her "it would cost him more than his car and horses were worth." A man in the uniform of a general interfered on her behalf, and the conductor left her alone.

Finally a conductor, unmindful of her great age, pushed her against the door so roughly that a bone in her shoulder was displaced. She had him arrested. The Freedmen's Bureau furnished her with a lawyer, and the man lost his situation. Soon after a conductor was known to stop his car unasked, and say to some colored women standing timidly upon the street, "Walk in, ladies!"—Christian Endeavor World.

HE WHO has resolved to conquer or to die is seldom conquered; such noble despair perishes with difficulty.—Corneille.


# BEAUTY LIQUID

**Remarkable Discovery of a Simple and Harmless Liquid that Clears the Skin of All Imperfections**

**Sent Free—To Show That No Blemishes Can Remain Where It is Used**

A large manufacturing firm has discovered what is apparently the secret of a perfect skin. There seems to be no blemish that it does not remove. It was found accidentally at the Chaplin Mills, makers of Textile Supplies, and they certainly have a fortune in it. Before they put it on the market it was tested in every way. Physicians and Dermatologists pronounced it wonderful in curing, clearing and whitening the

MRS. EVA M. DAVIS.

skin, yet as harmless and mild as cream. It was named Kentucky Complexion Beautifier, and has already made thousands of friends. It is the best thing ever heard of for the skin. It heals up pimples and other breaking-out in a few days; quickly cures skin diseases; clears away spots, freckles, blackheads, tan, etc., leaving the skin pure, bright and velvety as a child's. Mrs. Eva M. Davis, 218 Brand St., Elmira, N. Y., says: "Ever since I was a girl I had freckles and pimples something dreadful. I always felt ashamed of my face. I know I have paid out a hundred dollars for doctors and different stuff that never did me any good; at last I got discouraged and said I must always live looking like I was; but when I read in the papers about the discovery of Kentucky Beautifier I tried once more. If you had seen my face before and see me now you wouldn't know I was the same person. There is not a freckle or blemish of any kind on my skin, and now I can go out without a veil and feel so proud and so happy knowing how nice my complexion is. Every time I see a lady on the street with blemishes on her face I feel like I ought to stop her and tell her what cured me."

It is easy to use, being simply rubbed into the skin morning and evening. No skin is too bad to be cleared by it. To show what it will do, the Company is now sending a supply of the Beautifier free by prepaid mail, to all who write for it. It costs you nothing; simply send your address to The Chaplin Mills Co., 125 North Scott St., Covington, Ky.

## Have You Hay-Fever or Asthma?

Medical Science at last reports a positive cure for Asthma and Hay-fever in the wonderful Kola Plant, a new botanical discovery found on the Congo River, West Africa. Its cures are really marvelous. Hon. L. G. Clute, of Greeley, Iowa, testifies that for three years he had to sleep propped up in a chair in Hay-fever season, being unable to lie down night or day. The Kola Plant cured him at once. Rev. J. L. Combs, of Martinsburg, W. Va., writes that it cured him of Asthma of fifty years' standing. To make the matter sure, these and hundreds of other cures are sworn to before a notary public. So great is their faith in its wonderful curative powers, the Kola Importing Co., of 1164 Broadway, New York, to make it known, are sending out large cases of the Kola Compound free to all sufferers from Hay-fever or Asthma. All they ask in return is that when cured yourself you will tell your neighbors about it. Send your name and address on a postal-card, and they will send you a large case by mail free. It costs you nothing, and you should surely try it.

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# Because of Two Wrongs

BY ALBERT E. LAWRENCE

CHAPTER I.

DANIEL FURROWS was making his way with active strides along the path which led by his farm. His face was flushed, and he mumbled something, shaking his head as he went. His whole bearing was expressive of intense anger. Two boys on the opposite side of the road were loitering on their way home from the district school. They were swinging empty dinner-pails and bantering each other on some incident of the day. Pausing a moment, they caught sight of the man across the way.

"There comes Gif's father. Le's tell on him!"

"All right."

"Hi! Mr. Furrows! Mr. Furrows! Gif' got a lickin' in school to-day!"

Mr. Furrows stopped at the sound of his name; but finding whence the call proceeded, considered it beneath his notice and hastened on. The words which the boys cried after him reached his ears, but he gave little heed to them at the time.

He had been at a neighbor's, trying to settle some business which they had in common. After a long talk, in which they failed to agree, the other brought out some liquid refreshment. Furrows was foolish enough to imbibe, and after this they had openly quarreled. Furrows did not become drunk; he only drank enough to make himself ugly, as he afterward expressed it.

As he strode around the house his eyes fell upon some work which he had that morning assigned to Gift. The boy had done nothing with it. Ordinarily this would have only provoked the father, but in his present state it transferred all his anger to his son. Noises from the barn told where he might be found, and Furrows, instead of entering the house, hastened thither.

Gift had thrown off his coat, and stood with a stout hickory pole in his hand. A short distance before him, standing across his path, was his pony, Billy. As Mr. Furrows entered Gift started on a short, quick run; dropping one end of the pole upon the hard dirt floor just before reaching Billy, he sprang into the air and vaulted completely over the pony's back.

"What does this mean?" stormed the father. "Some more tricks ye learned at the show, I suppose! Haven't I told ye ye shouldn't turn my barn into a circus-tent?"

Gift, showing much confusion, came slowly from behind Billy. He shuffled about preparatory to undoing his arrangements for an exhibition.

"W'y hain't ye done that work I give ye to do this mornin'?" demanded the father, as the boy drew near him.

Gift gave a little start. He had never thought of it from that moment to this.

"I had to stay after school," he faltered.

"Ye're stayin' after school yet, ain't ye?" said the father, with a sneer. Then the words of the children in the street came to him. "Ye got a lickin', too, didn't ye?" he continued, as he placed his hand on the boy's shoulder and gave him a sharp twitch. "Didn't I tell ye that if ye got a punishment at school I'd give ye another when ye got home?"

This was all so unusual and Gift's terror was so great that he could not form an answer.

"Hey, boy! Didn't I tell ye that?" demanded the father, still more sharply.

"I don't know!" Gift managed to say at last.

"Well, I did, and I'm goin' to do it now!"

As Mr. Furrows spoke his eyes fell upon Gift's little riding-whip lying near, and he picked it up. The whip was made of whalebone, and was no mere toy, although Gift carried it more for show than for use.

Never had the boy the heart to strike his pony one such blow as was now laid upon his back. One, two, three! Then the father's hand was stayed. Some faint realization of what he was doing crept into his befogged brain, and pushing the boy from him he said, "There! Go to the house now; I'll finish with ye in the mornin'."

Not a single tear did Gift shed, but with every blow his heart—or something within him—seemed to swell bigger and bigger, until he felt that it must break. Never had his father struck him before, and now to think of it caused him more pain than the whip on his shoulders.

It was dusk when he entered the house. His mother's back was toward him, but the trouble in his breast so affected his footsteps as he crossed the bare kitchen floor that she knew something was wrong.

"What is the matter, Gift?" she called after him.

He made no reply, and she was too busy getting supper to follow him up. She heard his steps as he hurried up-stairs, and then the sound of his door as he closed it after him.

Not long after this the father came in. Again it was the footsteps that conveyed to Mrs. Furrows the knowledge of trouble; but before she could turn and speak to her husband he demanded, in cross, petulant tones, "Why ain't supper ready, Marthy?"

The wife took a step nearer, that she might get a glimpse of his face, and there she saw the confirmation of the great fear which had suddenly sprung up in her heart.

"Oh, Dan'el!" she cried.

"Don't 'oh, Dan'el' me!" he replied, with a rough gesture. "Can't ye see that what I want is somethin' to eat—a strong cup o' coffee or somethin'? The quicker it's got, the better it'll be for all concerned!" He said this last not as a threat, but as a man beginning to recognize his own condition.

With her mind filled with painful thoughts the wife set about this new task. The tea, which was now brewed, was removed and the coffee-pot replenished and set upon the stove. The husband's impatience soon broke forth again, but in a new quarter.

"What's become of that boy?" he demanded, after having looked into the sitting-room and the bedroom beyond and not finding Gift in either.

"He's gone up to his room," replied the mother. "I'll go call him down in a minute. I'm 'fraid he ain't well—" She stopped suddenly and looked questioningly at her husband.

"No, you won't do any such thing! If the boy has gone off in the sulks it won't do him any hurt to go 'thout his supper one night. It'll learn him to 'preciate his privileges."

"Dan'el," cried the mother, "you hain't—you didn't strike him?"

"Now, see here, Marthy; the boy ain't killed. You needn't look at me that way. I guess I know what I'm 'bout. We've humored the boy too much already. It's time he felt some 'thority. Besides, he's been acting up at school, and I won't stand that! A boy of mine's got to behave himself when he's 'way from home, 'tany rate."

Mrs. Furrows had sunk into a chair; all the color had left her face. Her Gift had been struck! No doubt he was now broken-hearted, sobbing his eyes out! She could not stand it; she must go to him at once. She rose, turning her eyes toward the stair door as she did so.

"Now, see here, Marthy; you're not goin' to coddle him!" said her husband, stepping between her and the stairway. "You'll only undo the good I've tried to do."

At this moment the coffee on the stove in the kitchen boiled over and the room was filled with its noisy hissing. The steam came pouring through the doorway, and the two standing before each other felt it, warm and damp, settle upon their faces.

"Now, see here, Marthy; I don't want any fuss. You go 'tend to the supper things and I'll 'tend to the boy. Women-folks 've got no business 'tendin' unruly boys; they only spoil 'em. It wants a firm hand."

He pushed his wife not ungently from him, and she, thinking it best to hide her time, turned and went into the kitchen, while he took his place at the supper-table.

Mrs. Furrows was a little, patient, hard-working woman, but capable of any amount of resistance were it necessary. As a rule her husband was kind and considerate, and her hope now was that this would be only a passing incident. Still while it lasted she felt all the pain of an acute trouble.

After the evening meal, which she barely tasted, she picked up the dishes and proceeded to wash them. She hoped that her husband, who had flung himself upon a lounge near by, would soon fall asleep. In the meantime she went on with her work as noiselessly as possible, listening anxiously for any sounds that might come from the room above. Daniel Furrows lay for a long time, evidently turning something over in his mind. But at last his heavy breathing showed that he had ceased to be conscious of what took place about him.

Mrs. Furrows laid down her dish-towel and tiptoed to the stair door. She hesitated a moment; there was some repugnance to doing what her husband, though in his present condition, had forbidden. But something told her that he was wrong and that she was right. Her mother-heart needed no further prompting, and she continued noiselessly up the stairs. She tapped lightly at her boy's door and softly called his name.

"Gift!"

There was no response, and she tried the door, but it failed to open. Could it be bolted? She had not known there was a bolt on his door. Gift had never locked himself in before. Again she called, softly, "Gift! Gift!" She dared not call louder for fear of waking her husband below. But to all her calls there came only silence and the beating of her own heart. She put her ear close to the crack of the door and listened intently. After a moment she was rejoiced to hear the heavy breathings of her boy—he was asleep—and she turned and went quietly down the stairs.

When Gift entered his room he was trembling from head to foot with suppressed passion. In the last few moments he had suffered more than in all his life before. There was a longing that he might shut himself for all time from everything and everybody. He closed the door, and catching sight of the bolt shoved it into place. This seemed to shut him more from the indignity which he had just received. There was no one to see him now, and the tears burst forth. He threw himself upon the bed and smothered his sobs in the pillow.

For a long time he lay thus, his mind filled with anger, pain and bitter resentment. All his thoughts were confused and jumbled, but still filled with the idea of a great wrong done him. He had played hard that day, and his wild sobbing soon wore him out. His last thought before he fell asleep was a half wish that he might die; then he guessed that his father would regret that day's doings.

When Gift awoke it was midnight. The soft rays of a full moon shone through his little window and lighted up the room. After he had recovered from his first start, and the recollections of the previous day had cruelly returned, he rose from the bed. The room seemed close; there was a heaviness in his breast and a soreness in his throat. He stepped to the window and noiselessly raised it. There was a haze without and a disagreeable smell of burning brush; but the air was cool and felt refreshing to his heated brow. He sat down to enjoy it, and tried not to think of what had happened.

But in spite of his determination his mind would return to the cruel and unreasoning punishment which his father had inflicted upon him, and the bitterness in his heart grew with every moment. He loved his father, and knew that his father loved him; but now he wished his father to feel the pain he was himself suffering. Above all, he wished his father to be—oh, so sorry for what he had done!

Gift's last thought before going to sleep came to him now. But he could not die, and, what was more, he did not wish to die. He guessed there were other ways to make his father sorry. The thought of running away had been vaguely with him for some time, but he was not sure that he wished to run away.

He wondered how he should meet his father on the morrow. How was the day to begin and go on? It seemed to him as if there had been some plan and he had forgotten it. He tried hard to think what it was. Then it came to him like a flash. It was his father's words, "Go to the house now; I'll finish with you in the morning!"

Finish! His father meant to whip him again! The boy's blood ran like fire through his veins. Never! He sprang to his feet, and with clenched fists glared before him. In his overheated brain there appeared but one way of escape, and his mind quickly settled upon this. He would run away!

Having come to this decision Gift set rapidly to work making preparations to leave. He took off his shoes, to make sure of noiseless footsteps, and moving quickly about the room soon had a small bundle formed of the things which he felt sure he should need. Going to the window he dropped this to the ground. He intended to follow the same way, but thought of the lunch which he ought to take, and to obtain which would make necessary a visit to the dining-room. With catlike tread he descended the stairs. He knew just where to find the things that he wanted. Some doughnuts and some cheese were slipped into a paper sack; a piece of pie he took in his hand to eat as soon as he left the house.

There were no clouds in the sky, but the haze, together with the full moon, gave to the stars a sickly appearance. The ground was damp and chilly, with a light frost.

Gift walked slowly toward the barn. He could not leave until he had seen Billy once more and said good-by to him. The barn door creaked on its rollers as he pushed it along, and Billy, in a neighboring stall, started to his feet and spoke as horses do, through their nostrils. Gift was by his side in an instant, and with arms thrown about the pony's neck clung tightly to him.

"Oh, Billy, I'm going away!" he said, drawing the pony's nose against his cheek. "I may never see you again, or if I do I shall be a man and you'll be—oh, so old! Maybe—maybe you'll—"

But that he might be dead Gift could not frame the words, and the thought remained unexpressed. He swallowed hard because of something in his throat. The thought of taking Billy along came to him, but this was impossible with the plan which was half formed in his mind. He would be obliged sooner or later to sell him, and there was no telling what sort of hands he might fall into afterward. But if he left Billy his father might keep him and care for him because of the boy to whom the pony had been so dear, and whom the father had loved, but might never see again.

Gift patted his pony caressingly on the neck; once more he pressed his cheek against Billy's nose, and murmured, with tears in his eyes, "Good-by, Billy, good-by!" Then he turned and ran swiftly and noiselessly from the spot.

Gift was by his side in an instant

"Oh, Dan'el, I can't find him!"

CHAPTER II.

Mrs. Furrows did not call Gift the next morning until breakfast was nearly ready. Then, as there was no response, she went up to his room. The door stood open, and within was considerable disorder. But Gift was not in there, so she turned and retraced her steps to the kitchen. She met her husband as he came in after having done his morning chores.

"Breakfast is ready," she said, quietly, and proceeded to take the things from the stove. As she did so she added, "I didn't know as Gift had come down yet. Have you seen him, Dan'el?"

"No," replied the husband from behind the towel with which he was wiping his face, rough with its six days' beard.

When Mrs. Furrows had placed the breakfast upon the table and her husband had taken his accustomed seat she stepped to the outer door and glanced about. Gift was nowhere in sight, and she called him twice by name.

She heard some movement in the shed, and thinking her boy had made it, she added, in her most persuasive, motherly tones, "Come, Gift, breakfast's ready." Then she returned to the table and poured her husband's coffee.

They did not wait for Gift, but began eating at once. Nothing was said of the previous day's trouble, nor did either speak of the boy again, though he was uppermost in the minds of both. As the meal went on and Gift did not appear the mother began to wonder. Finally she concluded it was because of a reluctance to meet his father, which was, perhaps, natural under the circumstances. She determined not to call him again until her husband had gone into the field to work. A late meal would make little difference to Gift, for it was Saturday and there was no school.

Daniel Furrows ate his breakfast with more comfort because of his son's absence. He had felt all the morning that he had not done just right the day before. He had told himself more than once that even if the boy did deserve some punishment he was in no condition to give it. "Why, I was blind mad!" he reflected, and began turning over in his mind plans for "makin' it up" to his boy, as he expressed it.

After breakfast he still lingered about the house, reluctant to go until he had shown something of how he felt. He was not at ease. His

wife saw this and thought she knew something of the cause, but made no effort to relieve him. Perhaps she thought that it was right that he should suffer.

But at last he took his hat and started for the door. Here he paused a moment; clearing his throat he said, "Tell Gift to come down to the potato-field after he's had his breakfast, an' help me there this morning, an' I'll go with him over to Round Lake fishin' this afternoon. I'd lay off an' go all day, but them potatoes 've got to be dug first."

"Oh," said Mrs. Furrows, brightening because of the spirit in which this had been given, "Gift will like that; he's always wantin' to go a-fishin' over there!"

Then the father went away feeling much easier in his mind. He had been at work in the potato-field about half an hour when he heard a step behind him. Straightening up, he turned about expecting to see Gift. Instead, he was startled by meeting his wife, pale in the face and greatly agitated.

"W'y, Marthy! what's the matter?" he said, taking a step toward her.

"Oh, Dan'el, I can't find him! I'm afraid he's gone—run away! His bed wa'n't slept in last night, an' some o' his things is gone—his shirts an' his heavy socks! Oh, Dan'el! If—if— What shall we do?"

Daniel Furrows was considerably staggered by this news. He left his hoe in the half-dug potato-hill, and the two walked back to the house. He led the way up the stairs to his son's room, closely followed by his wife, who hoped without hope that her painful surmise might yet be disproved. But there was the room with all its positive evidence. There was the bed with its patchwork quilt still tucked in at the sides, though it was otherwise considerably rumpled, and the pillow lay in a heap at the foot. There was the little stand drawer drawn out as the mother had left it on discovering that it was empty.

One look convinced Daniel that his wife's conclusions were right, and he was hurt. Involuntarily the cry escaped his lips, "I don't see what made him do it!" He was sorry in an instant for having said this because of the words which it drew from his wife.

"Oh, I do, Dan'el!" she cried, dropping upon the bed and burying her face in her hands, while the tears trickled between her fingers.

"I know what you mean, Marthy," her husband replied, his head dropping forward. "An'—an' God knows I wish't I hadn't!" His voice was husky as he uttered these words. He could not trust himself further, and so hurried from the room.

His wife, fearful that she had said too much, hastened after him. "Oh, Dan'el," she said, overtaking him in the kitchen, "I am sorry, too! But it'll be all right if you'll go after him and bring him back!"

"I'll go anywhere you say, Marthy," he replied, very contritely.

After this Mrs. Furrows was in a feverish state to have her husband off. But where would Gift be likely to go? This was the question which they asked themselves over and over again without discovering a satisfactory answer. It was at last decided, however, that Daniel should go to the nearest town that afternoon; perhaps he would learn something there. This he did, but at night returned knowing no more of what had become of Gift than before. The father had kept a sharp lookout, but had asked no questions lest the whole story should be disclosed, and this he was ashamed to have known.

It was a very lonely and a very dismal Sunday which the two passed. To add to the sense of desolation a dreary autumn rain set in early in the morning and continued all day. Neither one felt like attending the services which were held in the little school-house half a mile away. In the afternoon Daniel spent a greater portion of the time at the barn in profitless reflections, while his wife, alone in the house, had more than one hard crying-spell.

Monday came at last, but brought no news of the runaway son. Mrs. Furrows, however, now recalled that Gift had frequently declared when he became a man he should like to be a sailor on the Great Lakes. If he still held this fancy he would be likely to go straight to Detroit, which was only thirty-five miles to the northeast. Accordingly Daniel immediately made preparations to go thither. A man in the neighborhood was hired to do the chores on the farm, and that afternoon the father set out on his quest.

He was unknown in the city and did not hesitate to make inquiry at every place that gave the least promise of developments. He visited all the docks, and was very thorough in his search there. He called at the office of every lake-shipping company, but failed to find a single clue. There were those who advised him to put the matter in the hands of the police; but in Daniel's mind the police were only to catch criminals, and his boy was no criminal. After four days of fruitless search he returned to his home in the country.

The rest of the week was spent in waiting and hoping. Another Sunday came and went, but brought not the first tidings of Gift. Then the mother declared that of course Gift had not gone to Detroit; he knew they would follow him there. She believed now that he had gone to Toledo, which was about the same distance to the southeast.

Accordingly Tuesday morning found Daniel on the streets of Toledo. That day and Wednesday and Thursday he spent in the same way as he had spent his days in Detroit. Every place in which there was a chance of obtaining the faintest clue was visited, but the days went by with no success whatever.

Heart-sick, with hope deferred, Daniel set out for home. The thought of meeting his wife with no news of their boy bore hard upon him. Though she had never reproached him with a word, except those few which he had wrung from her on that first morning, he felt that she must in her heart blame him.

Mrs. Furrows was still up, though it was late in the evening when her husband returned. She had no need to ask, "What news?" for she read in his face the fruitlessness of his search. She listened with anxious attention as he quietly told the story of his journey while he ate of the lunch which she placed before him. When he had finished he rose and lighted his lantern to go to the barn, just to see how things had gone on while he was away. After he had gone out a few tears came into the mother's eyes, and she choked back a sigh as she took up the light and went to her room.

Weeks went by. Thanksgiving came, but it was poorly kept in the Furrows' house. Their great sorrow was still new, and it hid all the many things which they had to be thankful for. As winter came on they would sit about the kitchen stove, for somehow they felt more at home in that part of the house. Daniel would try to read his weekly newspaper, while his wife sat by busy with some knitting. The reading for the most part was a failure, owing to Daniel's frequent naps. From these he would start and glance at his wife. If he chanced to meet her eyes something there reminded him of their lost boy, and he wondered if she were always thinking of Gift.

One night past the middle of December, as they sat thus, Daniel noticed that his wife's knitting was of a different character from that which usually employed her. It gave him a great start when finally he recognized the foundation of a boy's mitten. His wife's eyes met his at the same instant, and she saw the surprised and questioning look there.

"Christmas is coming, Dan'el," she said, in a subdued voice. "Our boy was given us once as a Christmas gift; maybe he will be again—maybe he will come back!"

This was all that was said for some time. Both were thinking of the last thirteen Christmases, each of which had been a double celebration with them. It was quite natural that they should be sitting there alone at this time of the year. Daniel could almost fancy that Gift was just above them, neatly tucked in his little bed, and that they should be planning, as they had planned so many times before, some pleasant surprise for him. Once it had been a rocking-horse, several times a sled, and once a pair of skates. Last Christmas they had outdone all others and bought him Billy. How well he remembered Gift's expressions of delight! Never had the boy been so overjoyed. The recollection brought the light into Daniel's face and happiness back to his heart. Then the clock struck nine and all was reality again. With a long breath he rose to put things to rights for the night.

Two days before Christmas Daniel went to town to make some purchases. When he returned his wife gave his face her accustomed searching look. She always hoped that he would come back from such a trip bringing either Gift or some news of the lost boy. This time added one more to the number of her disappointments.

She had finished the mittens, and they were carefully laid away. That night she brought out a bundle of the boy's stockings, and as they sat by the kitchen fire looked them over. She selected a pair the legs of which were good, and after cutting off the well-worn feet took up the stitches and began to knit new feet on them. Daniel sat near her. Occasionally he spoke of this or that neighbor whom he had met while in town. Everybody was complaining of the hard times; he had never known money to be so scarce. There seemed to be no market for anything except turkeys, and even that was unusually dull. At last the clock struck nine. This was the signal for the knitting to be put away and the paper folded; ten minutes later the house was dark and another day had been lived through.

The morning before Christmas was fair, the temperature being twenty degrees above the freezing-point. It was not much like the usual Christmas in that latitude; there was no snow on the ground, but plenty of mud in the road. Mrs. Furrows was getting breakfast in one room and her husband was looking over his purchases in another. She showed the trouble in her face less this morning than she had since Gift ran away. The conviction had been growing on her that she should see her boy on the morrow, and it had now come to be very strong. While she worked she softly hummed a church tune. She was not conscious of the act, for her thoughts were far away, fixed upon the face of the runaway boy. But he was no longer a runaway boy; his face was turned homeward—she could see it coming nearer and nearer. Once she thought she heard a smothered exclamation from the other room, but concluded that she was mistaken, and went on with her work.

At last everything was prepared, and she called to her husband, "Come, Dan'el; come to breakfast." She stepped to the door to meet him, and was startled by the expression on his face. He had tried to hide it, but all his efforts were in vain. "Dan'el," she cried, "you know something —you have heard—"

"No, Marthy, it's nothing I've heard. It may all be a mistake. You mustn't set too much by it. I guess it was because I was thinkin' of him, it looked so much like him. It's a picture in a paper. I wa'n't goin' to say anything 'bout it, because I guess it can't be him; I thought I'd find out for sure before I told you, Marthy. You mustn't set too much by it."

He led his wife to the table, where he had smoothed out a paper which had been wrapped about one of his purchases. It was a leaf torn from one of the great weeklies, and bore a full-page illustration. Without speaking further he pointed to an object in the foreground of the picture.

"That's him! That's him!" cried Mrs. Furrows. "That's our Gift! They can't fool me! That's our lost boy, Dan'el! Our Gift—our lost Gift!" she continued, the tears filling her eyes. She could no longer see, and she asked, "What does it say, Dan'el? Where was it took?"

Daniel stooped and read the printing beneath the picture: "Chicago day; showing crowd at the main entrance, World's Columbian Exposition. Reproduced from an instantaneous photograph."

"Chicago!" echoed his wife. "Of course! Why didn't we think Gift went to the World's Fair? Of course; if we'd had any sense we'd 'a' thought of that before! Now you can find him, Dan'el? You must go for him now—this very day! You must go before he gets away from there!"

"Yes, if you say so, Marthy. I'll get Benton to come over and do the chores. He can drive me to town after dinner, an' I can ketch the next train. I'll take this with me; it may help me to find him." He carefully folded the paper and put it where he would not lose it. "But you mustn't set too much store by it, Marthy; it's only a clue, remember, but it's more'n we've had before," he said. He repeated this after dinner, and they were his last words before going out to be driven to the station.

This was his third journey to find their boy, but on neither of the others had he been so hopeful. How he expected to find Gift this time would be hard to tell. Neither he nor his wife had reasoned about the matter. That the paper was nearly three months old made no difference. They had found a picture of their boy, as they believed, taken on a definite spot in Chicago. The first step was to get to that spot; Dan'el would know what to do next.

It was dark when the train stopped at Elkhart. The conductor came in and called out, "Twenty minutes for supper!" Daniel had brought a lunch with him, but he thought to add a cup of coffee to it, and left the car for that purpose. As he pushed through the crowd to the lunch-rooms he jostled a number of persons. Among these was Gift. But in the dark and confusion neither father nor son knew of the other's presence.

[TO BE CONTINUED]

# The Mercy of the Cyclone

BY I. McROSS

THE heat rolled up in waves from the sun-soaked land into an atmosphere already surcharged with heat. For a number of hours the birds had ceased song and twitter. The sharp chr-r-r of the grasshoppers and the steady click, click of the harvester seemed to voice the misery caused by the stifling air. Not the slightest breeze ruffled the broad expanse of ripened wheat; not a motion except of men, machine and horses. White streaks of lather showed on the horses wherever touched by a strap of leather, and though they lagged miserably at their work the driver was too enervated by the heat to urge them to a livelier gait.

A tall, broad-shouldered young man walked toward the team and held up one hand with a gesture of command. "Take the horses, Mart, and put them in the shade of the barn; they'll get sunstruck if you don't look out. We'll quit, all of us, until it cools off a little."

He walked slowly toward the house and threw himself down in the shade of the porch. The other men lounged in the shadow of the barn.

"Good thing Jeff Cooper thinks something of his hosses," muttered Mart. "He don't care for anything but what costs him money. No wonder his wife left him."

"Where did she go?" asked one of the men, lazily.

"Nobody knows, unless she went back to her folks."

"What did she go for?" questioned the man again.

"Got tired of workin' like a beast, I guess. All Jeff married her for was to work. She used to milk the cows, take care of the hosses and do most all the chores, then go into the field and work. She drove the team all through harvestin' last summer."

"She was a Swede, wasn't she?"

"Yes; a strong, red-cheeked young woman, with big blue eyes, and hair just the color of that wheat-field down there. A young Swede was workin' for Jeff, and they left about the same time; guess there ain't much doubt—"

"It's a lie!" The men jumped and turned to look into Jeff Cooper's white, angry face. He was trembling, but his voice was cool and steady.

"My wife never left with any man; it was not like her. No better, truer woman ever lived, and any man who dares to say anything different may answer to me." He clenched a pair of huge fists and looked at Mart, who did not answer for a moment, then he asked:

"What did she go away for, then, and where is she?"

"I don't know; but I know that when I find her she will be as good and pure as a little child."

"Pity you hadn't 'preciated her a little more when you had her," returned Mart, scornfully. "Most always if a man thinks anything of his wife he don't set her to workin' outdoors, like a man."

"I never wanted her to work outdoors. She liked to 'tend the horses and drive them, to sit on the harvester and watch the wheat fall. I did everything for her that I could. You thought when you built a mud house for your wife that you had done wonders; I built a frame house for mine, and put a porch on it, when every board in it cost me 'most a bag of wheat, and that at the railroad twenty miles away."

"Look! Look!" interrupted one of the men. "A cyclone!" The men jumped to their feet. They could hear the distant roar coming nearer and nearer, and all earth and the heavens seemed filled with the gathering fury.

"It's going south of us," said Mart, hopefully.

"There's enough of it coming here. Get the horses into the cellar, quick!" commanded Jeff, running as he spoke to the horses, that stood pulling at their halters, their sensitive ears pricked forward as they scented the coming tornado. In a moment men and horses were in the cyclone-cellar and the heavy door bolted. Through the thick earth banking they could hear the crash as the cyclone struck.

"It's a big one," said Mart; "if we get the whole of it you won't see your house, barn, harvester or wheat unless you go into another country and gather them up."

Jeff did not answer. He was not thinking of the safety of his property, but of his wife. Was she safe out of the track of the cyclone? How frightened she had been the summer before, when just a slight cyclone had passed through their fields! How she had clung to him in the darkness and perfect safety of the cellar! He could still feel her strong, young heart beating wildly against his own as she clung to him in an agony of fear and dread. Why had she left him? He had asked himself the question hundreds of times since she had left him—three months ago. He suspected that she had gone home; it was only fourteen miles away, but he was too proud to make any search for her. Surely she would come back some time! Mart's words burned his ears, though he did not believe their evil suggestion.

"It's over, I guess," Mart's voice broke upon his thoughts. He went to the door and unbolted it. It opened outward, and when he pushed it struck something that had been blown against it. He pushed a little harder; the door opened a crack, and the man looking over Jeff's shoulder said:

"The house's left, for one thing."

They pushed hard against the door until Jeff could squeeze through. He looked down at his feet.

"Hilda!"

At his feet, her long, fair hair swept about her by the wind, lay Hilda. One arm sheltered the baby that Jeff had never seen; it moved and cried, but Hilda lay motionless, her white, upturned face ghastly beneath its coating of dust. Jeff took the baby from her arms and gave it to one of the men; he then stooped to raise Hilda. Mart sprang forward to help, but Jeff pushed him aside, and, unassisted, carried her to the house and put her upon the bed. His face was as colorless as hers as he rubbed her hands and called her by all the old endearing names she had been accustomed to hear from his lips.

"No use, Jeff; she's gone; you can't bring her to," said one of the men, in the hushed tones one uses in the presence of the dead.

"She is not dead! She must not die!" contradicted Jeff. "Hilda! Hilda!" There was more determination than despair in the cry.

"I can feel her pulse," he cried, hopefully, a few moments later. At last she opened her eyes, but there was no look of recognition in them. After awhile the dazed, bewildered expression left her face, and her lips parted in a smile as she looked at Jeff. He motioned the men from the room and dropped upon his knees beside the bed.

"Hilda, how could you leave me so?"

A troubled look came into the child-like blue eyes. "They did tell me—Mart's woman and the others—that all you cared for me was to work. And sometimes I felt that the work was too hard, so I thought I would go 'way till I was once more strong and could work for you."

"They lied, Hilda! It was you I wanted, not your work! Just you, dear! How did you get here? Where were you when the cyclone struck?"

She wrinkled her forehead a little in anxious thought.

"I was home. I went out with baby, and I turned this way and walked a long time; then I saw the cyclone coming and was so 'fraid." She shuddered, and Jeff patted her hand reassuringly. "Then I run. Oh, I run miles, miles! Then the wind took me up, and then—I forget till I saw you, Jeff."

Mart put his head in at the door.

"The roof of the barn's gone, and the harvester's missing, and ev'ry bundle of wheat's been blowed gal'ay west, and all that was standin' is flat. It was a terrible cyclone, now I tell you."

Jeff turned a happy face, and said:

"Not a terrible cyclone, a blessed one; it brought my wife back to me."

## THE HOOSIER POET

James Whitcomb Riley, familiarly known as the "Hoosier poet," and perhaps the most distinctively original poet the West has ever produced, was born in Greenfield, Indiana, about forty-five years ago. Both on his father's and on his mother's side he is descended from ancestry of character and ability, his mother's people especially being remarkable for those same qualities of sympathy, sensibility, tender-heartedness,

humor, etc., which his poetry indicates that he himself possesses in large degree. As a boy he lived to the full the boy-life characteristic of the country village of the West of the last generation. And in the fields, the lanes, the fence-corners, the roadsides, the "swimmin'-holes," the "cricks," etc., which that boy-life affected he enjoyed the advantages of an education that was much more agreeable to him and which has proved much more valuable to him than any he ever obtained at school. In fact, he was but an indifferent school pupil, to put the matter even mildly. His father wished him to become a lawyer, as he himself was; but the young nature-lover had no desire for law or any other profession, and so elected to "learn a trade." Accordingly he was "apprenticed to an old Dutchman" who was a sign-painter.

Finally he concluded that he would read law with his father. But "I didn't seem to get anywhere; forgot as diligently as I read." Then one day "a patent-medicine doctor happened to come along." The man had a nice rig and two fine horses, and young Riley craved permission to go along with him and paint his advertisements. The permission was granted, and "I rode out of town behind those horses without saying a word to any one." In short, he ran away from home. Riley remained with him for a year, in which he traveled about through many states.

Having returned home from his patent-medicine sign-painting adventures he organized what he called a "business expedition on my own account." He got together four or five young fellows like himself—"all musical," "all hardy painters." "One," he says, "could whistle like a nightingale; another sang like an angel; another played the banjo." Riley himself "scuffled with the violin and the guitar." "The Graphic Company"—this was its name—would invade a town and capture it by music and swell garments. "We dressed loud. You could hear our clothes an incalculable distance." Then they would make a bargain with a leading firm in the place—the highest bidder they could get—to paint the firm's advertisements along all the roads leading to the town.

He finally joined a newspaper-office—in Anderson, Indiana—and began his literary career by writing humorous rimes as "advertising locals"—"doggerel," he called them, but we may be sure among them shone many a spark of true genius. At the same time he wrote many rimes with the serious intention of having them, if possible, recognized as poems. But he could not get them published. Even compositions whose worth he had tested—those that "would please people when I'd stand up and read 'em to them"—would be returned promptly by every magazine to which he offered them for publication. The Hoosier dialect was too "low-down" for the average magazine editor.

Finally, in a freak of boyish indignation—to prove that what editors really wanted was not originality, but imitation—he devised the scheme of writing a poem in imitation of Poe and palming it off on the public as a real poem of Poe's recently discovered. The scheme was very skilfully planned and very deftly executed, and successful beyond anything the clever deviser of it had ever dreamed. From one end of the country to the other "Leonainie" was hailed as a veritable "find," a bit of genius' most genuine ore. Riley had his revenge. He had some trouble, however, in proving that he was not an intentional forger. He lost his newspaper position, but immediately got another and a better one, on the Indianapolis "Journal." "Come and get pay for your work," said Judge Martindale, the editor. The turn in the tide had come. Soon appeared (in 1883) "The Ole Swimmin'-hole, and 'Leven More Poems." Indiana recognized her own. The "Hoosier poet" was acclaimed by his compatriots everywhere. But when, in 1886, the volume in prose and verse appeared—"The Boss Girl and Other Stories"—"James Whitcomb Riley" became a name as well known in one state as in another. —Antoinette M. Reazin, A.M., in Chicago Record.

## A LESSON FOR THE TEACHER

Little six-year-old Robbie was ready for his first day at school. He was a farmer's boy, and as he lived about three miles from the city school he was to ride with the older pupils, who were usually taken from their suburban homes by the city barge.

Robbie's heart was full of golden anticipations when he left home that morning. Alas, when he returned that evening there was leaden dullness in their place!

Miss Frazer, the teacher, had been teaching the children the word cow that morning, and she had done everything she could to impress the word, the picture, the attributes of the animal upon the minds of the little ones. But never once did she ask one of the little children what he or she knew about a cow.

The next morning when Robbie's class was called all came out but Robbie. Miss Frazer said, "Robbie, come out with the others."

"I don't want to come!" was the unexpected reply.

"Why not?" said the surprised teacher.

The answer came, with contemptuous frankness, "Because I have heard all I want to about that old cow!"

It is doubtful if much arguing or explaining by a superintendent could have brought home to Miss Frazer's heart such a lesson as did that childish complaint.

She pondered the lesson well, and since that time has tried very hard to resist that temptation that so often besets a teacher—to look upon children's minds as so many empty vessels into which the water of truth is to be poured and so stored up for use.—Primary Teacher.

## EGYPT'S OLDEST MAN

The Egyptian gallery at the British Museum has just come into possession of the mummy of a man which may well be the oldest known body of any human being. The facts concerning it are briefly summed up in the following inscription reproduced from the case which contained the mummy:

"Body of a man who was buried in a shallow oval grave hollowed out of sandstone on the west bank of the Nile in upper Egypt. Before burial the body was treated with a preparation of bitumen, and was arranged in the posture in which it now lies, on its left side, with the hands before the face and the knees drawn up nearly on a level with the chin. The grave (which has been roughly imitated by the model here exhibited) was covered with slabs of unworked stone, and in it, beside the body, were disposed flint knives and a number of vases partly filled with the remains and dust of funeral offerings. The man probably belonged to a fair-skinned, light-haired race, which may be regarded as one of the aboriginal stocks of Egypt, whose settlements are usually found on the west bank of the Nile. The style of the flint implements found in the grave indicates that the man lived in the later neolithic period of Egypt; that is, in remote ages long before the rule of Menes, the first historical king of Egypt."

The grave was first seen by a wandering Arab. He reported his discovery to a British official, who immediately sent a couple of Egyptian soldiers to guard it day and night until it could be safely removed. The body is not a mummy of the ordinary historic Egyptian period such as that of Rameses II., the father of the Pharaoh of the Exodus. It was never bound up in linen nor cased in any painted coffin, but was merely coated with a preparation of bitumen, the Arabic word for which is mumia; hence our word mummy. To reach the period when this man hunted along the banks of the Nile it is necessary to travel backward in time through the modern period since Elizabeth, through mediæval Europe, through the whole history of Rome and Greece, past the time of the earliest mummied king the museum possesses, past even Menes, the earliest king to which Egyptian records make reference, who, according to Mariette, ruled about 5004 B.C. Then we are among two prehistoric races—one the conquerors and the other the conquered—out of which sprang the Egyptian race of the earliest dynasties. It is with these remote stocks that this man is connected. Considering the conditions in which he was found it is evident that he was associated with a late period of the new stone age of Egypt. He is buried in a characteristically neolithic grave (the graves of this period are covered with rude slabs of stone), and has neolithic pots and flint implements beside him. They are like other neolithic pots and chipped-flint weapons and knives found in other parts of the world. The fine, thin flint knives were perhaps placed in the grave as part of a funeral ritual. They should be compared with the Egyptian flints in the prehistoric section of the museum; they are almost identical with those found in the grave. There is, of course, no inscription of any kind on the pots, knives or grave, all having been made long before the invention of a written language. It is curious to note that certain ancient Egyptian documents mention traditions of a race called the Trehennu, who had red hair and blue eyes. This man has distinctly auburn hair. He was buried on the western shore. In later times every Egyptian was buried on that side of the river, and Egyptian models of the death-boats on which the bodies were ferried over the stream may be seen in the Egyptian gallery.—The Sphere.

## THE CLEANEST PEOPLE ON EARTH

If the inhabitants of Hawaii—and, indeed, of the islands of the Pacific generally—are not clean it is certainly not because they do not bathe. They are really the most amphibious people one can imagine. Often they have several baths in one day, and everybody bathes at least once in the twenty-four hours, and has a good scrubbing in the bargain with the best material that they have for the purpose.

A dip in the "briny" is nowhere considered sufficient for cleanliness, and among the Polynesians one can hardly insult a man more than to state that his skin shows marks of salt-water. In fact, directly after bathing in the sea a bath in fresh water is considered a necessity to wash off the salt.

If possible, villages are built within a convenient distance of a river, or a large pond or lake is made by damming up a streamlet or two. In this place mixed bathing is enjoyed by the villagers, who use for soap the large green oranges which grow about the pool. This fruit is too bitter for eating, but when the pulp is rubbed on the skins of the natives, who are always greased with cocoanut-oil, it makes a real soap and lathers nicely.

Scrubbing-brushes are also provided by Dame Nature. A segment is torn from the husk of a cocoanut, and the fibers thus exposed serve the purpose of the bristles of a manufactured brush. The bather makes good use of the soap and brushes thus provided, and when he has finished his ablutions he sits in the wind to dry.

Bathing is a curiously solemn ceremony, and during the process of drying no one thinks of talking more than is necessary, while running about to expedite matters would be considered a great breach of decorum.

When the skin is sufficiently dry a coating of cocoanut-oil is rubbed in briskly. Then the bather winds a strip of cloth or gaudy print around the waist in the approved native style, and the ceremony is at an end.—Chicago Journal.


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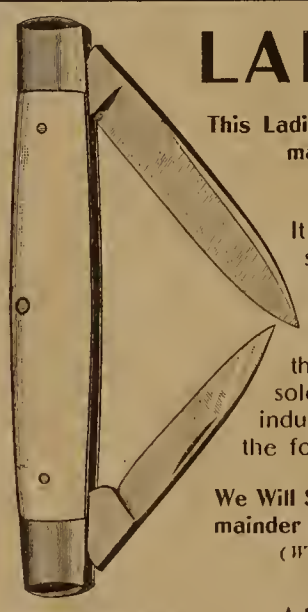

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## HE TOLD HER SHE WAS BEAUTIFUL

He told her she was beautiful,
She, frowning, bade him go;
She knew he sought her fortune, for
Her glass had told her so;
Still, still he called her beautiful—
She knew her face was plain,
For twenty times a day, alas!
The truth was told her by the glass
That had no prize to gain.

He told her she was beautiful;
"Nay, do not jest," she cried;
He told her she was beautiful
And knew she knew he lied;
Still, still he called her beautiful;
She answered, "Cease, I pray;
Your words are false, as is your heart;
It is not love suggests the part
You basely seek to play!"

He told her she was beautiful,
And, chiding him, she fled;
He told her she was beautiful—
She stopped and turned her head;
Still, still he called her beautiful,
And rushed to where she stayed,
And prating still about her charms
He folded her within his arms,
And rapture filled the maid.

—Chicago Record-Herald.

## BLIND AS A BAT

DAVID HARUM was a good horse-trader, but a recent transaction in horse-flesh which was made by a well-known Memphian shows that there are others who know how to get the long end of a horse trade. Several weeks ago this Memphis man saw a fine buggy-horse which he thought he wanted. He located the owner and asked the price. "One fifty," was the reply. After looking the animal over closely and trying her speed he concluded it was a good trade, and without more ado wrote a check for the amount. The next day he found that the mare was as blind as a bat, but this did not hinder her speed nor detract from her general appearance. He drove the animal for several weeks and succeeded in attracting the admiration of another lover of horse-flesh, who made a proposal to purchase.

"Well," said the Memphian, "I gave $150 for her, but I will let you have her for $165."

The prospective owner looked the animal over and concluded he had a bargain. He paid over the money and took the mare. When the animal was unhitched the first thing she did was to run against a post, and then by way of emphasizing the fact that she was blind, fell over a barrel. The next day the buyer came back to the Memphian with blood in his eye.

"Colonel, you know that mare you sold me," he began. "Well, she's stone-blind."

"I know it," replied the colonel, with an easy air.

"You didn't say anything to me about it!" said the purchaser, his face reddening with anger.

"Well, I'll tell you," replied the colonel. "The fellow who sold her to me didn't tell me about it, and I just concluded that he didn't want it known."

The new-comer took his medicine, and is now on the lookout for a friend on whom he can even things.—Memphis Scimitar.

## A SWEET REVENGE

"Oh, Eleanor, I am so glad to find you here! I went up to your house, and your mother said you had come here to be fitted;" and as Eleanor grasped the speaker's hand the dressmaker frowned, for she didn't want the fit of the new gown interfered with.

"Well, Daisy," said Eleanor, "I am glad, too, for I see by your eyes you've something to tell me."

"Yes; this morning I went over to see Kit, and ran right up to her room, as we always do, you know."

"Yes," assented Eleanor.

"And she was crying. All round her on the floor were letters, and on the bed more letters. I said, 'Mercy, Kit, what's the matter?' Every now and then she would make a vicious jab at a letter and appear to be writing.

"'Oh, Daisy! I am almost wild I'm so busy!'

"'What are you doing?' I asked.

"'Well,' said Kit, 'you know Clarence and I have had a quarrel—and I'm glad of it.' Here she sobbed the gladdest kind of a sob. 'And—and—he sent all my letters back—and the silver book-mark—and the lovely pipe I gave him with his name engraved on it—and—oh, Daisy! I can't use any of them—how can I?—and so I'm getting his letters ready to return. I'm—I'm correcting them.' And then she laughed and made another jab with her pen.

"'Correcting them?' I gasped.

"'Yes, correcting them. You know Clarence is a terrible speller, so I have gone over each letter in red ink and made him see that it was intentional. Humph! I'll bet he won't tell another man he broke it off!'

"I couldn't help laughing; but wasn't it a fine revenge?"—London Tidbits.

## IT WASN'T

A laughable but rather embarrassing case of mistaken identity occurred the other day in a large dry-goods store, according to an exchange.

A gentleman who is a little too fond of joking entered the shop for the purpose of meeting his wife at a certain counter.

Sure enough, there stood a lady dressed, to his eye, at least, just like the woman he was after.

Her back was turned, and no one was near her; so he quietly approached, took her by the arm, and said, in a voice of simulated severity:

"Well, here you are, spending my money as usual, eh?"

The face turned quickly toward him was not his wife's; it was that of an acrid, angry, keen-eyed woman of about fifty years, who attracted the attention of everybody in that part of the store by saying, in a loud, shrill voice:

"No, I ain't spending your money, nor no other man's money, and I'll—"

"I beg your pardon, madam," cried the confused gentleman. "I supposed you were my wife, and—"

"Well, I ain't your wife, nor no other man's wife, thank fortune, to be scolded at!"

The chagrined joker waited to hear no more, but made his way out of the store.—Youth's Companion.

## BREAKING EVEN

"Excuse me, Brother Soghack," said an Arkansas matron, who was one of the high pirates at the church festival, addressing a determined-looking gentleman who was gastronomizing at one of the tables, "but are you—ah, going to stop eating pretty soon? You have your fifth bowl of oyster-stew now, and—ah—"

"The case," replied Brother Soghack, with his mouth full, "stands like this, Sister Hooks: You made me pay in advance. I forked over a five-dollar bill, and you sweetly told me that as it was for the benefit of the church it was against the rules to give any change back. So now, sister, I'm goin' to keep right on eatin' till one of three things happens—till the rules are amended for my benefit or I get my money's worth or bust. That's the kind of a man I am, Sister Hooks."—Life.

## A PECULIAR GIRL

"That Miss Bradish is one of the most peculiar girls I ever saw. She and I met in Florida last winter, and we've been very good friends ever since, until a couple of weeks ago. Now she barely speaks to me. I can't account for it. We were talking one evening about clever women. We both agreed that talented women are seldom beautiful."

"You probably made some break that she didn't like."

"No, I was careful about that, and she showed no sign of her unaccountable coldness until I asked her whether, if she could have her choice, she would prefer to be talented or beautiful. She never answered the question, and has been different toward me ever since. Most peculiar girl I ever saw."—Chicago Times-Herald.

## ELI ON DR. McINTYRE AND SAM JONES

Dr. Robert McIntyre's eloquent description of strawberries and cream always charms an audience. He picks the strawberries in the morning dew with their red cheeks sparkling in the sunshine. Then he pours over them the delicious cream cooled over the crystal spring, and frosts them over with flakes of sugar-snow.

After the doctor had hypnotized the audience with his strawberry eloquence at the Ottawa Chautauqua I asked Sam Jones how he liked it.

"Oh, McIntyre's eloquent description may suit the masses, but people have different tastes."

Then Sam scratched his left ear, took a chew of tobacco, and exclaimed:

"Dog-on it, Eli, I like prunes!"—Wit and Humor of the Age.

## DIDN'T WANT TO HEAR HER TALK

"George dear—"

"Don't bother me, Laura. I am reading, and I'd rather read than talk just now."

An hour dragged its way into the dim, misty past, and the voice of Mr. Ferguson was heard calling loudly:

"Laura, how much longer have I got to wait for dinner? It ought to have been ready an hour ago!"

"It was, George," responded Mrs. Ferguson from the dining-room. "That was what I went in to tell you, but you didn't want to hear me talk. We have all finished, and everything is cold; but you needn't wait another minute if you want your dinner."—Stray Stories.

## UNPARDONABLE

Mrs. Winks—"Why do you hate Deacon De Goode so?"

Mrs. Minks—"He lost patience with a crying baby in a railroad train."

Mrs. Winks—"Most any man will do that."

Mrs. Minks—"Yes, but it was my baby!"—New York Weekly.

## NEVER SUITED

The traditional attitude of the pessimist toward all things is represented thus in a dialogue with a Georgia farmer, reported by the "Atlanta Constitution:"

"How do you like this weather?"

"Not much; I'm feared it's goin' to rain."

"Well, how's times with you?"

"Sorter so-so; but they won't last."

"Folks all well?"

"Yes; but the measles is in the neighborhood."

"Well, you ought to be thankful you're a-livin."

"I reckon so; but we've all got to die."

## A RUSE

"What's them?" inquired Mrs. Corntossel, as the farmer opened his carpet-bag and let the contents drop on the floor.

"Them is two gold bricks."

"Swindled?"

"No, sirree! I paid twenty-five cents apiece fur 'em. I'm goin' to leave 'em around the house, so that when folks come along with cash to pay fur country board they'll say we're sech simple, unworldly people it's a pity to take advantage of us."—Washington Star.

## A GEM OF LONDON HUMOR

"Well, good-by, Mr. Green. It was so nice of you to come. It does father such a lot of good to have some one to talk to."

"I was delighted to come, Miss Brown; but I'm afraid I'm not much of a conversationalist."

"My dear Mr. Green, don't let that trouble you. Father's ideal listener is an absolute idiot, with no conversational powers whatever, and I know he has enjoyed himself tremendously to-night!"—London Punch.

## KNOWS WHAT HE'S ABOUT

"I believe Higginside smokes the vilest cigars on earth. When he drops in at my office I always give him a good cigar to keep him from lighting one of his own."

"Drops in every day, doesn't he?"

"Generally."

"I thought so. I know Higginside. He is a fellow of a good deal of thrift and ingenuity."—Chicago Tribune.

## ALAS, TOO TRUE

"You must pay in advance," said the lady who kept the boarding-house at the great hogus lithia spring.

"But," replied the tottering invalid who had just arrived, "can't you let my trunk be security until to-morrow? I expect a check then."

"No. Pay now or you can't stay here to-night. I want you to understand that I'm not in this business for my health."—Chicago Times-Herald.

## A "TRUNKLESS" BODY

An explorer, lately returned from his travels, was relating his adventures.

"I peered," said he, "into the thicket, and there before me lay a trunkless body."

"Nonsense," remarked an interfering critic; "who ever heard of a trunkless body?"

"My friend," replied the traveler, quietly, "the body was that of an elephant."

He then resumed his story.—London Globe.

## NOT UP TO THE MARK

Magazine editor—"Haven't you got a poem to go on this page?"

Assistant—"Here's one that I don't quite get the meaning of, but I suppose many of our readers will understand it."

Magazine editor—"That won't do. I want something that will puzzle everybody."—Judge.

## NOT TOO PURE

"I suppose," the advertising manager of the daily "Howler" said, "you would prefer a position next to pure reading matter?"

"Oh, no!" replied the advertiser. "As I cater to the swell trade a position next to some society scandal or divorce story would suit me best."—Catholic Standard and Times.

## THE ONLY LOSS

"I believe," said the well-meaning man, "in giving your friend a little wholesome advice whenever the occasion arises. It doesn't cost you anything."

"It costs you your friend very often," said the wise man.—Philadelphia Press.

## WANTED AN ADVANCE

"Say, mama, how much am I worth?"

"You are worth one million of dollars to me, my son."

"Say, mama, couldn't you advance me twenty-five cents?"—Time.

## TRY IT AND SEE

Friend—"What do you find the most important thing at the beginning of a literary career?"

Author—"Money to buy postage-stamps."—Syracuse Herald.

Dr. S. Whitehall, the subject of this sketch, was one of the earliest investigators to recognize the fact that headaches, neuralgias, and nearly all recurring painful nervous attacks, are caused by auto-intoxication, *i. e.*, spontaneous self-poisoning, from the accumulation of imperfectly eliminated poisonous waste products resulting from unhealthy action of the different organs. After having determined this to be the real cause of so many distressing painful afflictions, further research in pursuit of a remedy that would neutralize, dissolve and carry these poisons out of the blood, led on to the discovery of the formula for Me-grim-ine, the most wonderful remedy of its kind, being entirely free from narcotics, yet capable of quickly relieving the most severe headaches, neuralgia, or other acute pain in any part of the body. Desiring that all who wish may give it a trial, we offer 100,000 sample packages of the remedy for free distribution, only asking that you send your address, mentioning FARM AND FIRESIDE.

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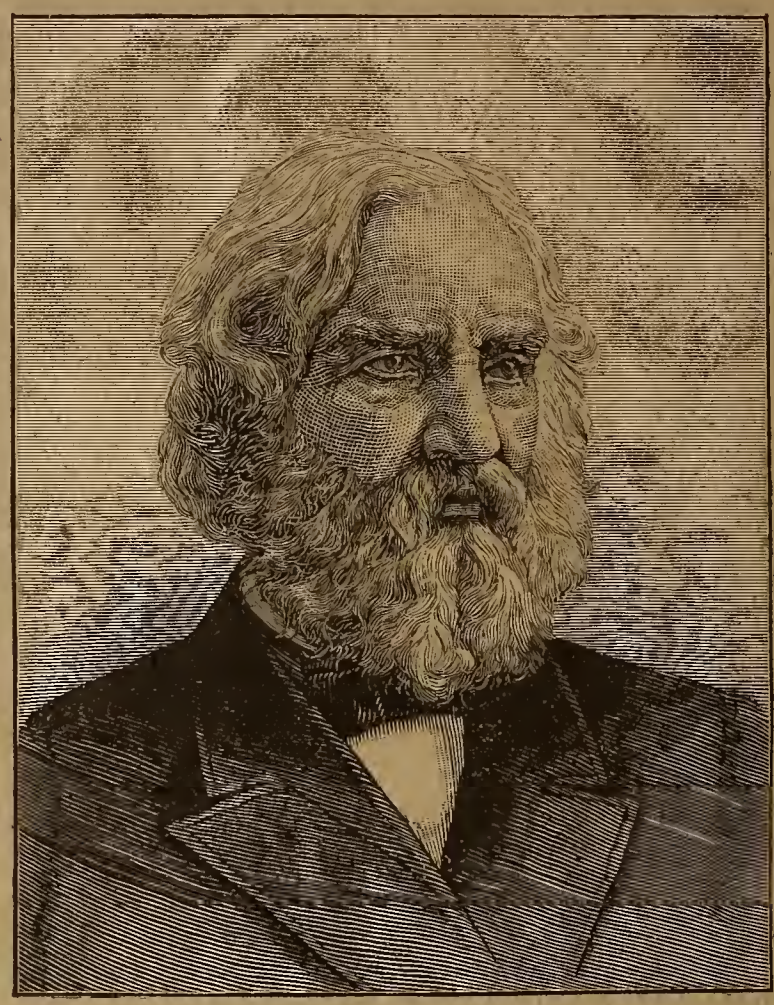

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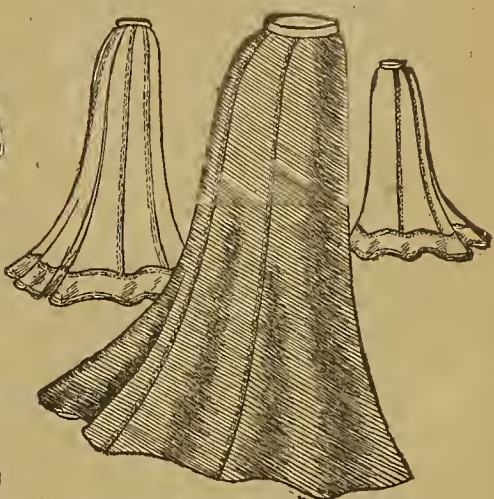

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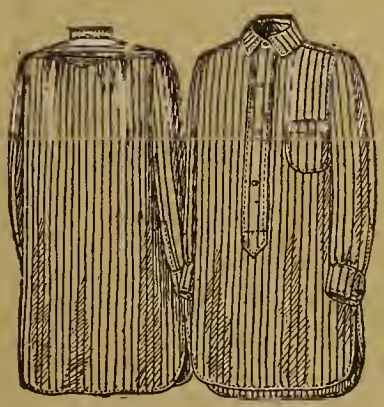

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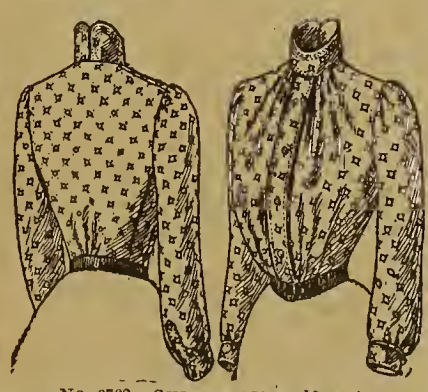

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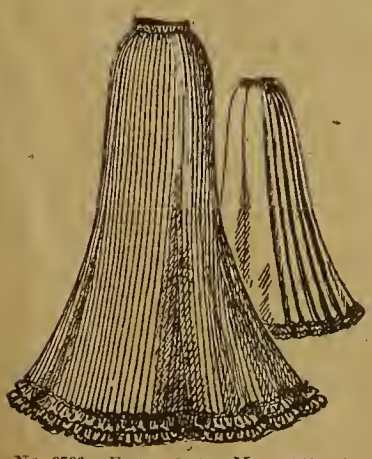

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# Draining the "Swamp-Lands" of Illinois

BY FRED GRUNDY

IN SOUTH central Illinois, just north of what is called "Egypt," lie the great stretches of level prairie which commercial travelers declare is the garden spot of the state. The soil is black, deep and exceedingly fertile, and on some of it corn has been grown every year for forty years and more, and it is still yielding thirty-five to seventy bushels to the acre.

This is the great section that was once termed the "swamp-lands of Illinois," and most of it was popularly supposed to be too swampy and wet for any purpose, and it was sold for twelve and one half cents an acre. Almost every acre of it is now under cultivation, and its market value is fifty to one hundred and twenty dollars an acre, the price being largely governed by nearness to market.

A short time before it was "discovered" by the sharp-eyed farmers from the North and East I rode for miles and miles through prairie-grass so tall that I was obliged to rely upon the sun and the hour for guidance; not a tree nor hillock was in sight in any direction. Above the head of the small rivers and large creeks that drain this great tract the land in many places is so level that water will flow in any direction, and here and there on these levels are depressions two to four feet in depth and one acre to hundreds in extent. These were the "swamps" which caused this great fertile tract to be designated "swamp-lands." At any time during the summer one could stand on one of the low ridges found here and there and trace these depressions for miles by the dark green, almost black, bushes and reeds that grew ten to fifteen feet high in them.

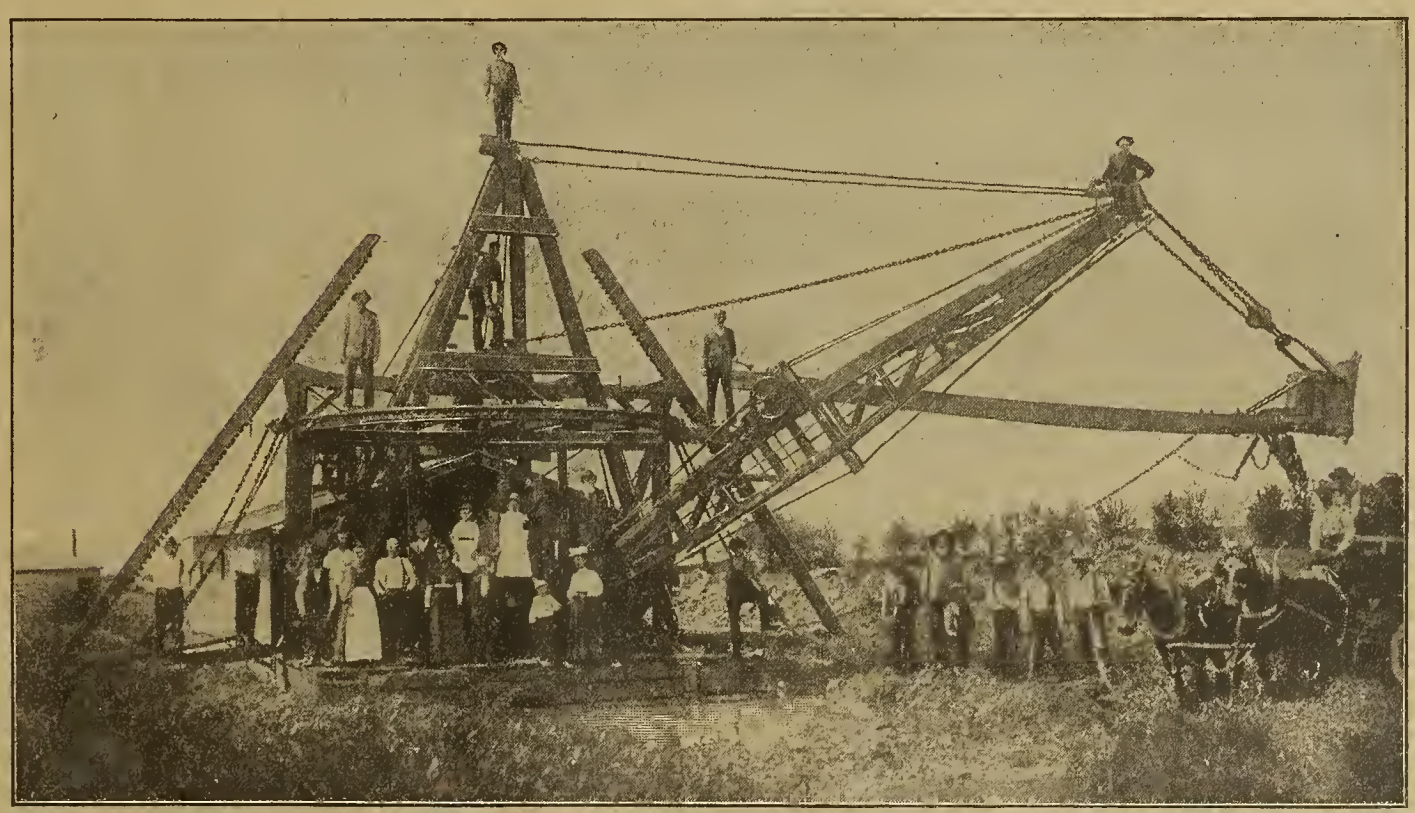
In spring and fall these swamps were a veritable paradise for wild water-fowl, and millions of geese, ducks, cranes and other aquatic birds remained there for weeks during those seasons, and at night the noise they and the bullfrogs made was almost deafening. Now scarcely a water-fowl of any description stops here for even a day. The swamps are gone, and with them the bullfrogs and malaria. There are no resting-places for ducks except in the ditches, where they would not be safe ten minutes.

For many years after much of it was under cultivation the draining of this great fertile section was a problem that could not be solved. In some localities the farmers formed mutual drainage companies, and with plows and road-scrapers opened ditches that carried off lots of water. But the process was slow and expensive, and severe on the horses employed. In other localities the owners of land lying between the head of the creeks and the swampy tracts above objected to having the drainage-ditches run through their land, and this led to numberless neighborhood feuds and expensive litigation. Finally the state legislature enacted the law creating "drainage districts." Under this law three landowners can petition for a drainage district comprising all the lands naturally drained by a certain creek, or that can be drained by a ditch leading to this creek.

The commissioners of the township or townships in which the petitioners reside engage a surveyor to ascertain what lands will be benefited by the proposed ditch. When this is done, all such land is thrown into the district whether the owners wish it or not. Three drainage commissioners are now elected by the owners of the land to be benefited, and they assess the cost of the ditch on the farms benefited, beginning at the highest point and continuing to where the ditch empties into the creek. The only recourse of those living near the head of the creek is to make the best terms possible with the drainage commissioners, and cheerfully grant them all they ask for. Such a course will be found most satisfactory in the end. Some of the more stubborn, who have stood for years between the head of the creek and the flat lands above, will not do this. I have known them to begin kicking the moment the surveyor sets his instruments on their land, and to continue until the ditch was completed, and then sell out and leave.

All the great drainage-ditches are now made by powerful, up-to-date machinery. Where sufficient water can be had to float a flat-bottomed boat containing the engine and machinery the work is begun at the upper end of the ditch and continued until the head of the creek or outlet is reached. The illustrations show the front of such a ditching-machine, with its powerful, steam-operated steel scoop, and also the house-boat which floats along after it and in which the operators live.

When at work the great steel scoop plunges into the water in front of the boat, and in a moment rises up loaded with several hundred pounds of mud; it then swings around to one side, a man jerks a line, the bottom falls out, and down goes the mud with a swash. The scoop swings back, and, guided by a lever, plunges down in another place and scoops up another great load. Usually there are two shifts of men with the machine, and it works day and night, cutting a ditch eight to twenty feet wide and four to eight feet deep, as determined by the surveyor. The entire outfit is fastened together with bolts, and when the end is reached it is taken apart and shipped to where another job is waiting.



Where sufficient water to float the ditcher cannot be obtained or held back the work is done with a "dry ditcher." This machine is moved forward on rollers laid on heavy planks, and the work is always begun at the lower end of the ditch. If the ground is uneven, or has been cut away by water, trestles are used to move the machine on, and often the work is difficult and tedious. Sometimes a low ridge must be cut through to make a free outlet for the water, and in such places the ditch will be eight to fifteen feet in depth and the same in width. When a heavy rain falls in one of these districts the surplus water quickly flows off the land through the smaller ditches made by the farmers, and into the big ditch, down which it goes with a rush to the creek below. I have seen a heavy local shower fall on one of these level tracts, and six or eight hours later the creek below was out of its banks, though not a drop of rain had fallen near it.

Wherever one of these great drainage-ditches has been made the market value of the land has increased from three to ten dollars an acre. The farm it crosses is practically divided, and the owner must build bridges to connect the two sections; but the frog-ponds and bottomless mud-holes that disfigured the farm and produced only reeds and malaria are gone forever, and he soon has them producing corn at the rate of seventy to ninety bushels to the acre. He finds himself possessed of all the advantages in the matter of drainage that the man has whose lands border on the creek. He has a first-class outlet for all the tile-drains he may put in, and he finds the soil in the old ponds a mass of the richest humus, six to ten feet in depth, and capable of producing the largest crops of any sort of grain or grasses for ages to come without the addition of an atom of fertilizer. He can begin farming operations very much earlier in the spring, and he can always get his corn out of the fields without difficulty in the fall. He can easily tile-drain his yards and make them dry and firm the year round. The soil about his residence no longer reeks with moisture and malaria six months or more of the year, and the health of his family is vastly improved. The highways are tile-drained to the big ditch, and thereby so much improved that he no longer dreads the task of hauling his produce to market or his fuel home. In short, a big drainage-ditch transforms these level, swampy tracts of rich land to a veritable garden for the wide-awake, skilful farmer—makes it equal in every respect to lands bordering on the creeks with regard to drainage facilities, but much more valuable because of its vastly deeper, richer soil.

To be sure, the great ridges of black mud and clay thrown up on either side of the ditch by the machine are very unsightly, but in three or four years the material begins to "cure" and crumble, and it can then be gradually worked down with plow, disk and harrow, and then any kind of crops can be grown upon it, so the farmer really loses the use of the land covered by it but a comparatively short time.

# FARM AND FIRESIDE

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## WITH THE VANGUARD

THE "Crop Reporter" for July says: "In the United States corn is always first of the domestic crops in total value. From 1879 to 1900 its total annual value, based on the farm price, December 1st of each year, has ranged between about $500,000,000 and $750,000,000, once only having fallen below the smaller amount, while five times it has exceeded the larger. The second place has been usually held by hay, the total annual value of the crop since 1879 ranging between $330,000,000 and $494,000,000, with a single exception in 1893, when it attained to upward of $570,000,000. The total annual value of the wheat crop since 1879 has ranged from $213,000,000 to $497,000,000, surpassing the hay crop in value only during the years from 1879 to 1882, and again in 1891 and 1897, when failures in the European wheat supply brought the price of that cereal for a time to an extraordinarily high level. Cotton in some years contends for the ascendancy with wheat, having exceeded the latter staple in total value ten years out of thirty-five; to wit, in 1869, 1870, 1872, 1887, 1889, 1890, 1893, 1894, 1895 and 1900. The three years 1893, 1894 and 1895 will be remembered as a period of exceptional depression in wheat prices, and 1900 as a year of remarkably high prices for cotton. The total annual value of the cotton crop since 1879 has ranged from $242,000,000 to $339,000,000, the low value occurring in 1879, and the high in 1900.

"Our four most valuable crops are those named (oats never rising or falling from the fifth place, or potatoes from the sixth); in their order of total value corn and hay in general coming first, wheat and cotton afterward. But when we come to consider their importance in international commerce the order of these staples is very different. Cotton, our fourth crop, rises to the first place, with a total average export value of $221,000,000 for the five years from June 30, 1895, to June 30, 1900. Wheat follows, with an average export value for the same years, counting grain and flour together, of $148,000,000. Corn and corn-meal sink from first place to third, their average export value, $66,000,000, being not quite one half that of wheat, and over one fifth that of cotton. Hay, second in value produced, is altogether insignificant in value exported, which rarely much exceeds or falls below $1,000,000 per annum. It is plain that the United States farmer has very little interest in the hay crop of other countries, where he neither sells nor buys hay.

"Our export of corn and corn-meal, small as it is by comparison with the total product of the country, is still by no means insignificant, while the rapid increase in the amount within the last few years raises hopes that a yet larger place is destined for America's leading grain in the world's markets. But the production of this country so far surpasses that of the world outside—for of the world's maize crop, year by year, not far from seventy-five per cent is credited to the United States—that it is hardly worth while to take account of what is grown in other countries for its bearing on demand and on price. In fact, except when a failure of the wheat harvest in Europe causes an unusual demand for breadstuffs, or when a commercial depression lowers prices of all commodities, the value of a bushel of corn is regulated by the number of bushels produced in the United States, falling as that number rises, and rising as it falls. Similarly with cotton, of which staple this country produces also more than all the rest of the world together; fifty-nine per cent against forty-one in 1892. But there is no such close correspondence in the case of wheat, of which grain this country furnishes only from sixteen to twenty-seven per cent of the world's product.

"Since 1883 there have been but five years when the average farm price of corn has failed to move in a direction opposite to the crop-figure movement—to rise as the crop decreased, or fall as it increased. From 1891 to 1892, and from 1892 to 1893, both production and price fell; from 1897 to 1900 both rose in each consecutive year. From 1883 to 1899 there were but three instances when the price of cotton took the same course as the production. When we come to wheat, however—of which the amount grown in this country has only once reached one fourth of the world's product—exceptions become more numerous, especially after 1890. For several years before that date the rule of production and prices had been followed as closely for wheat as for corn or cotton, the exception indicated in a slight fall both in production and in price between 1886 and 1887 being fairly doubtful; but the changes afterward have set the rule completely at defiance. Prices persisted in falling from 1891 to 1892, and from 1892 to 1893, notwithstanding diminishing crops in the United States, while the rises from 1890 to 1891, from 1894 to 1895, and from 1896 to 1897, accompanied increased crops. With corn and cotton, therefore, we are justified in regarding crop conditions in this country only; with wheat we must pay at least equal attention to those in Europe, whose total wheat harvest, except in 1891 only, has always been more than double that of the United States."

NUMEROUS cases, recently detected, of the use of formaldehyde in milk will serve to emphasize the following editorial of the "Record-Herald" on the subject of death in food-preservatives:

"Some recent deaths have called public attention to the necessity for laws protecting the community from careless canners and bottlers of food. The federal and state legislatures are taking up the question of food-adulteration in earnest. Inquiries already conducted have resulted in disclosures that supply a basis for pure-food legislation. But it is becoming more and more evident that the legislation must go further than the prevention of food-adulteration. Laws must be enacted that will reach the canner, packer and bottler, and that will control every detail in the process of putting up food for the market. Rev. William Fawcett, of this city, died a short time ago from the effects of ptomaine-poisoning caused by eating canned salmon. Ptomaine is an alkaloid that comes from putrefying animal matter.

"'The Evening Wisconsin,' of Milwaukee, calls attention to a common misapprehension regarding the cause of diabetes. When a man dies of diabetes it is the common impulse to assume that the disease was due to alcoholic excesses. That diabetes may develop in constitutions innocent of alcohol was shown by the death of Rev. Joseph Cook, a consistent prohibitionist, which was caused by diabetes. The number of deaths from diabetes is constantly increasing, while there is less immoderate drinking than there was a few generations ago.

"'The Wisconsin' believes that the most of these cases come from adulterations of food, and from chemicals carelessly used as preservatives. Many a total abstainer has his stomach permanently injured by such preservatives as salicylic acid and other agents used to arrest decomposition. Says 'The Wisconsin:'

"'While statutory provisions for the safeguarding of the public health remain as inefficient as at present, there is scope for the exercise of charity in commenting upon deaths by diabetes. Even when a man who is not a teetotaler is carried off by that disease it is harsh to call him a victim of the bottle, meaning the bottle which is a receptacle of beer or wine.'

"Instead of a man who dies from diabetes being a 'victim of the bottle,' he is more apt to be a victim of salicylic acid or other chemical preservatives used in putting up food products."

IN ITS work for the purely legitimate agricultural fair, and against the "wide-open" fair, the Civic Committee, of Boston, addressed the following circular letter to a number of state boards of agriculture:

"The Secretary of the State Board of Agriculture:

"Dear Sir:—In behalf of the highest interests of agricultural fairs, would you kindly inform us whether in your opinion the purely legitimate agricultural fair, or the 'wide-open' fair, pays best in the long run, financially, educationally and socially.

"2. From which will the surrounding community derive the greater profit?

"3. Whether all intoxicating liquors would better be rigorously excluded?

"4. Whether all games of chance would better be strictly forbidden?

"5. Whether advertising a tent-show with suggestive terms, even though the show is not immoral, should be allowed?

"6. Whether tent-shows that are vulgar should be permitted?

"7. Whether 'circus' features tend to absorb time, strength and interest of patrons to any disadvantage to the exhibitions of farm, home, school and factory products?

"Trusting you can make it convenient to briefly reply,

"Respectfully yours,
"THE CIVIC COMMITTEE,
"Eben Bumstead, Secretary."

The replies are practically unanimous in favor of the genuine agricultural fair. The following from the secretary of the Ohio State Board of Agriculture concisely presents the concensus of opinion on the subject:

"Replying to your list of questions I beg to answer categorically as follows:

"1. I am convinced that the 'purely legitimate agricultural fairs pay best in the long run, financially, educationally and socially.'

"2. From the legitimate agricultural and industrial fair.

"3. Intoxicating liquors should most certainly be strictly excluded.

"4. All games of chance should be rigorously forbidden.

"5. No such advertising should be permitted.

"6. Nothing of the kind should be allowed on the grounds of any exposition.

"7. 'Circus features' should not be countenanced under any circumstances.

"The above opinions are mine individually, as well as those of the Ohio State Board of Agriculture, and the Ohio Agricultural and Industrial Exposition is conducted along the lines indicated.

"Yours very truly,
"W. W. MILLER, Secretary."

## THE ON-LOOKER

TEN years ago I sat in one of the galleries of Cincinnati's great music hall watching the mustering of a host of protestants. From Massachusetts and Georgia, from Minnesota and Texas, from Virginia and Kansas, representatives of agricultural associations came to this central point to voice their protests against hard times. Thousands attended the meeting, and in everything that was said was expression of the intense belief that people remote from the soil and its workers dictated the conditions under which the workers must live. The thought was that outsiders fixed prices—the price of farm products, the price of transportation service, the price of gold. It was an instructive scene, and this in part because in it was displayed a measure of that spirit which in unhappy countries brings class conflict. Right or wrong, these earnest people passed resolutions, returned home, and succeeded only in voicing the dissatisfaction that finds lodgment in most human hearts because we cannot dictate the terms upon which we may serve our fellows.

Again this year public attention is being attracted to a huge effort to control prices of farm products by a federation of producers. The thought is that markets are glutted by a precipitous dumping of crops upon the market, and that producers should learn a lesson from manufacturers, who combine to control prices. It is an effort to extend to farmers a degree of the same privilege of fixing prices that is enjoyed and exercised so freely in much of the commercial world to-day. It is an effort to make the old protest effective.

I have no desire to offer any criticism of the spirit animating those who are making an honest, square attempt to reap the reward of their toil. In the fixing of the prices of his products no one has acted more helplessly in the past than the farmer, and in many years his compensation has not been as great as it should have been. Believing that the world fares best when the farmer is well paid, my conscience puts no brakes upon my wish, as a farmer, for higher-priced food in the world's markets. We have the most hungry people when farm products are cheapest. When farmers are not making money they cease to spend, and factories close, throwing families out of employment. When farmers are buying freely, as they do when their products sell well, the world goes to work, and all can have bread. We like high prices. Some producers get them by combination, and naturally many come to think that farmers are foolish not to combine and to get the power of dictating prices of what they have to sell.

Riding on a train, I fell into conversation with an old friend who was an expert employee of a big pool of manufacturers of a certain line of goods. It was his business to determine whether the goods of each member of the pool was up to the standard or not, and his salary was proportionate to the responsibility of the position.

"You certainly are doing well," I said.

"Yes," was the reply, "I seem to be fixed all right, but it is only a matter of time until I must lose the position. I am paid by the pool, and when any member gets some product of his factory that is not up to the standard, and tries to shove it upon the pool, I have to put in my veto and make him my enemy. It is only a matter of time until I must offend enough members to become thoroughly unpopular, and then off comes my official head."

And it came about eventually as my friend anticipated. This man and that man had grievances because they could not take advantage of the combination, and in each instance the personal interests of the individual outweighed the interest of that man in the pool.

Loyalty to my class cannot close my eyes to the fact that this same selfish regard for purely personal interest which was manifested by these business men is apparent among us farmers, and that there is no steady purpose to sacrifice immediate chance of profit for the general good. An illustration was found in the effort to restrict the cotton acreage some time ago. While some men, good and true, would go home and limit acreage, others would increase acreage to get an undue share of the anticipated profit from restricted production. It is in human nature to do such things, and while some rise upon a higher plane, a sufficient number remain below to defeat the aims of the leaders. In the manufacturing world men can be held by contracts whose violation brings heavy penalty; but where this course is not feasible I confess to lack of faith in any scheme for the dictation of prices. It would be easier, so it seems to me, to bring back the reign of the law of "demand and supply" as the regulator of all prices. O—L.

True to their home, these faithful arms shall toil
To crown with peace their own untainted soil;
And, true to God, to freedom, to mankind,
If her chained bandogs Faction shall unbind,
These stately forms, that, bending even now,
Bowed their strong manhood to the humbler plow,
Shall rise erect, the guardians of the land,
The same stern iron in the same right hand,
'Till o'er their hills the shouts of triumph run;
The sword has rescued what the plowshare won!

Oliver Wendell Holmes.

# ABOUT RURAL AFFAIRS

**The Family Cow** "Which breed will make the best family cow?" is a question often asked. A good family cow must be a good butter-cow, and therefore will also be a good dairy-cow where butter is made for commercial purposes. We do not care so much about the quantity of milk; it is the cream that we are after. This question of best breed is not only of great interest to the farmer, but also to a great many who have just a small homestead or occupy just a little place in the country or on the outskirts of a city or village where there is a chance to keep a cow to supply the family with milk and butter. That great crowds of people daily visit the dairy-barn on the Pan-American grounds, where a comparative test of breeds has been carried on since along in May, is therefore not to be wondered at. I myself have been through this building, examining the cows—five of each breed—and their records, with a good deal of curiosity. The "New York Farmer" in a recent issue says:

"The great interest shown in the dairy features of the Pan-American Exposition in Buffalo intensifies the regret that the breeders of high-grade cows did not accept the chance offered for a great competitive test there."

For my part I am glad that the breeders of "high-grade" cows did not interfere with this test of breeds. We cannot afford to buy cows for family purposes that are worth (or at least rated) thousands of dollars each. The test that is here being made is a fair one. The cows selected from each breed are animals rather above the medium in quality, and worth from one hundred close up to one thousand dollars each. Undoubtedly there are many cows on our farms and kept as family cows that can show, and under the same conditions as found in the dairy-barn would show, just as good a record as the cows under test now show. It would not have been easy to find a man better fitted to superintend such a test than friend Van Alstyne, who is usually to be found about the building or in the office. He considers the test a fair one, and of greater value for the general public than if cows of high fancy value were picked out for it.

Does it pay to keep a cow? If the records here daily and carefully kept are a fair criterion it seems that there is good profit in keeping a cow or cows. But the profit varies greatly with different cows even of the same breed and where the animals do not show very great difference in essential points and general appearance. And undoubtedly the profits would vary very much, also, with the treatment and style of feeding. We must remember, first, that all these cows are fresh, and therefore in best condition for yield of milk and profit, while the high-grade animals are usually managed so as to show off to best advantage at the fall fairs. The stalls are roomy, airy and kept scrupulously clean, and the feed consists of silage, hay and various grains, the whole compounded in a well-balanced ration. Other advantages which the test-cows have over most animals kept on farms and by householders are their entire freedom from annoyance by the flies and mosquitoes which are allowed to torment the others, and their kind treatment and quiet surroundings.

The following is a record of one week's profits derived from each cow in each lot of five; namely, Polled Jersey, $1.61, $1.53, $2.27, $ .70, $2.08; an average a cow of $1.64. Red Polls, $1.63, $2.28, $2.27, $1.30, $1.69; an average of $1.83½. Brown Swiss, $1.76, $1.85, $1.91, $1.55, $1.38; an average of $1.69. Guernsey, $1.81, $1.70, $2.48, $1.43, $2.11; an average of $1.90½. Jerseys from Canada, $1.82, $2.00, $2,21, $1.47, $1.72; an average of $1.84½. Ayrshire from Canada, $1.98, $1.99, $2.25, $2.06, $1.98; an average of $2.05. Holstein, $2.00, $1.88, $1.78, $1.84, $1.46; an average of $1.79. French Canadian, $ .90, $1.52, $1.63, $1.71, $1.57; an average of $1.48. Dutch Belted, $1.33, $ .73, $1.71, $1.36, $ .66; an average of $1.16. The Dutch Belted, as will be seen, stand lowest in the list, with the French Canadian doing somewhat better. The Ayrshires are at the head, and the Guernseys rank next to them. The Red Polls come next, closely crowded by the Jerseys. One of the Polled Jerseys evidently is one of those cows that will not respond as freely as others to good feeding and good treatment. Two in the lot give over two dollars profit a week, while this one gives only seventy cents—a big difference. Under less favorable conditions this cow would undoubtedly give no profit to the owner. It should be weeded out or replaced by a better animal. The remaining four would give an average profit a week of one dollar and ninety cents, and thus push the Polled Jersey up in rank next to the highest. Among the Dutch Belted we find two animals of especially low grade. This variation in yield of individual animals of the same breed must be taken into careful consideration by any cow-owner. The poor ones should be weeded out in order to bring the average and aggregate profit up to the highest point.

Mr. Van Alstyne tells me that the butter made from these test-cows is sold right on the grounds at twenty-five cents a pound, which, in consideration of the high quality of the product, is not a fancy figure, and the same price which he secures for the product of his own dairy at home. But what a difference there is in the color of the butter made from the different breeds! No butter-color has here been used. The highest-colored product comes from the Guernseys. The breeds seem to rank in this respect as follows: Guernsey, Polled Jersey, Red Polled, Brown Swiss, Jersey, Ayrshire, Shorthorn, Holstein, French Canadian, Dutch Belted.

**Floricultural Exhibit** The grounds near the Horticultural Building at the Pan-American present a grand sight, indeed. I doubt whether greater taste and skill were ever displayed in the arrangement of similar exposition-grounds. Mr. William Scott and his helpers and the firms who planned the individual exhibits deserve the highest praise. The pansies, so much in evidence and so beautiful a month or two ago, have faded and dwarfed in the heat and dry weather of the latter part of June, but other flowering and foliage plants more suited to tropical conditions have taken their place. Mexico has an exhibit of cacti that is worth a long trip to see. Want of space forbids of my going into details. Roses were the leading flower during the month of June, but nothing could surpass a show of the Crimson Rambler in full glory the first week of July. The plants are set closely together in large beds, and the whole surface is a mass of crimson. Finally I wish to advise all my friends who come to Buffalo this season to let one of their first trips be up in the Electric Tower. The elevator charge is twenty-five cents, but the sight from above is worth it. You will be able to view the entire surroundings, whether it be as far as Niagara Falls or as near as the bull-fight in the streets of Mexico, only a short distance from the foot of the tower. It is the best way to get your bearings.

T. Greiner.

## SALIENT FARM NOTES

**Beautifying Farm Homes** Two eighty-acre farms located not far from where I live were offered for sale last spring. The soil of both is good. Both have very fair houses on them, medium-sized barns, with hedge and other fences in good repair. On one the house is about thirty feet from the highway, and on the other it is eighty feet. The first has two cottonwood shade-trees, no lawn, no shrubbery, no fruit-trees. The other has five white ash shade-trees, a neat little lawn ornamented with a few spruces and flowering shrubs, and about thirty apple, cherry and plum trees. The first was offered for sixty-five dollars an acre, and the other for seventy dollars an acre. Quite a number of people wanting farms visited the two, and the one having the lawn and fruit was taken two months before a buyer for the other was found.

I have often suggested the planting of evergreens and flowering shrubs on the farm lawn, rather than little beds of flowers, because they are strong and hardy, require but little attention in the busy part of the year, and are not apt to be injured by stock, while if a good selection is made there is a pretty surprise in store for nearly every month of the growing season. Any well-informed nurseryman can make up a list suitable for almost any section of the country. Among the best of such shrubs is Spirea Van Houtteii. It is graceful and neat at all times, but when in full bloom it looks like a great bank of purest snow. The illustration is a photographic reproduction of one standing near my front gate. It is now seven years old, is about five feet high and eight feet across the top. When in full bloom it invariably creates a sensation. People passing along the highway often stop to admire it, and a great many have asked for "sprouts," seeds and cuttings, offering to pay any reasonable price for them. It does not sprout, and I never saw a seed on it. We have rooted several cuttings for friends. The plants are cheap at the nurseries—fifteen to twenty-five cents for fair-sized shrubs. It grows rather slowly at first, but after getting fairly started it soon makes a beautiful shrub. It would make a very pretty ornamental hedge. The one illustrated has never been pruned.

SPIREA VAN HOUTTEII

It pays to plant trees and to have a neat little lawn in front of the house. It pays because they make a home homelike and attractive not only to the owner and his family, but also to everybody else, and increases the selling price—increases its value in the eyes of people wanting a home. Trees are cheap and easily planted. Evergreens and ornamental shrubs can be procured from any good nursery, and add immensely to the attractiveness of the farm home and the beauties of a neat little lawn. The objection to a lawn urged by many busy farmers is that there is too much labor required to keep it in order. A milk-cow keeps the grass on my lawn down, and does a very good job. To be sure, the grass is not cropped as evenly as a lawn-mower will do it, but it does not look bad, by any means. The flower-bed is a strip five feet wide running the length of the walk, and nearly all the flowers and shrubs are on that side. The cow is tethered so that she can get all of the grass except a few narrow strips, which are mowed off in a few minutes and fed to her.

Fred Grundy.


**Sharples "Tubular" Dairy Separators.**

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University of Wisconsin—630 lbs per hour; test skim milk...01
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N. H. Agr. College—"The boys like it;" test skim milk...01
Hatch Experiment Station, Mass.—692 lbs per hour; test skim milk.....02
Kansas State Agr. College—660 lbs per hour; test skim milk.....03
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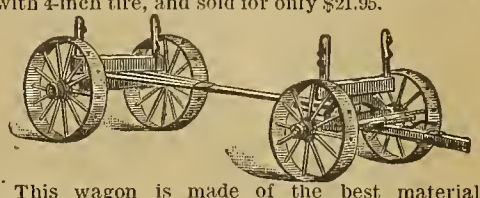

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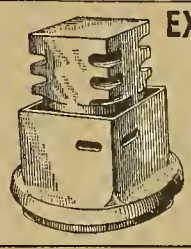

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# OUR FARM

## FARM THEORY AND PRACTICE

Selling Feeding Stuffs.—An immense amount of wheat-straw and corn stover now leaves the farm at a price that brings little clear money to the producer, and yet displaces a big amouut of hay. It seems to me that this is a poor policy. The coarse and low-priced feeding stuffs should be consumed upon the farm, where their manurial value is actually greater than the price received at the farm, thus leaving the market free to take all the good hay that can be spared at a paying price. In all the towns and villages of the central states the owners of horses are learning to feed lots of straw and stover, having learned that they can use this material in balancing up a ration for their animals much more economically than hay can be used; this meaus loss of fertility to the farms and decreased demand for hay. If feeding stuff is sold off the farm it should be that which is high-priced.

Low-grade Products.—We are slow to realize the folly of marketing any product of low quality if it can be used with any profit on the farm. We glut our markets with the common and inferior, putting ourselves at the mercy of buyers. If the receipts promise to be little more than the expense of marketing, the place for the goods is at home. If they have any feeding value or fertilizing value, it should be gotten, and the demand for better goods should be left good. This is true of fruits, vegetables and grains. Only good stuff brings any profit at all. It may be to the interests of consumers and middlemen that everything be dumped upon the market, but it is against the interests of all producers. Plan to keep cheap stuff ou the farm.

Quality in Potatoes.—The number of bnshels of potatoes consumed by our people in this country is greatly restricted by the poor table quality of much of our product. Of course, it is guesswork, but judging by what we know of many town families it is probably safe to estimate that there would be a demand for twenty-five per cent more each year if the quality was always first-class. Some of our most prolific varieties are strong, soggy or hollow, and some are all three. Again we have some very productive areas that cannot produce a potato of high quality. It is the rule nearly everywhere that the varieties of best quality are not the best yielders. Where a producer has a local market it pays to regard more than outside appearance and yield an acre, but under the present conditions the shipper can hardly afford to do so. If his product be of good size and color it will sell as readily as a better potato, while if we have the choicest table quality without pleasing size and color he cannot compete. He must have big yields to win just so long as fine flavor commands no premium, because the buyer cannot tell when he is getting it. The situation is unfortunate. The growers restrict their own market, and seriously so, and yet the individual can consider only his returns an acre, and in the shipper's market the good yielder of fine appearance is the one that brings the best returns.

Fertilizer for Wheat.—The commercial fertilizers for use this fall are now being bought by the farmers. Notwithstanding all that has been written about analysis, many buyers find the figures very puzzling, and to such I offer two or three simple suggestions. Most mauufacturers make many grades of goods, and so there is little or nothing in the name. The best firms must put upon the market some low-grade goods to meet the demand of the buying public. It is the analysis that counts. Read all that is printed upon the bag. If all the items refer to phosphoric acid and phosphate of lime, if ammonia and potash are not mentioned, then pay attention to one thiug only, and that is the amount of "available phosphoric acid." Take the smaller of the two numbers on that line, as only the smaller is guarauteed. Surely that rule is simple enough, and it is absolutely correct. If "15" be the figures, you are getting "15-per-cent" goods, which should cost you about one dollar for each one per cent, more or less, according to your nearness to a factory and your skill in buying. If "10" be the figures on that line, the goods are just two thirds as valuable as the "15-per-cent" goods, but will cost you more thau one dollar for each per cent, because you must pay freight on more useless matter. It is best to get the highest grade of acid phosphate if one wants such a fertilizer, and then use a correspondingly small quautity to an acre. In this way the required number of pounds of available phosphoric acid is gotten most cheaply.

Another suggestion: The fertilizer of which we have been speaking is purely a phosphate, not a couplete fertilizer, and a wheat-grower may have reason to believe, or may be persuaded to believe, that he needs a complete fertilizer for his ground. To meet such a demand and yet have a fertilizer comparatively low in price, brands are made containing one per cent of ammonia and one per cent of potash, with a fair amount of phosphoric acid. This permits the printing of all three elements on the bag, and satisfies many buyers; but let us figure a minute. One per cent of a ton is twenty pounds. In two hundred pouuds of a fertilizer having one per cent of potash there would be just two pounds of potash, worth five cents a pound. Does any one believe that two pounds of potash distributed over an entire acre of land would supply any particular need of that soil? Either the soil needs no potash or it needs more than two pounds to an acre. This is equally true of ammouia. The amount is so small that it would matter little one way or the other were it not for the fact that the price a ton is made much higher ou these mixed goods. There can be no corresponding benefit, unless the percentages are high enough to justify the labor of mixing and the soil needs all the elements. The point is that one should use unmixed goods unless he actually needs the other elements, and if so, he should get a fertilizer that contains enough of them to amount to something. The fertilizer with one per cent of potash may give results, but it is not the trifling amount of potash that does it. Some other element is doing the work. If a complete fertilizer is needed it should be more nearly "complete" than a "trace" or "one per cent" can make it. If a complete fertilizer is not needed there is waste in using such a one.

David.

## A MULCHING-DRAG

Reasonably shallow cultivation for corn, as well as many other crops, is coming to be generally recognized as not only the scientific, but the successful, method by the more progressive farmers, who have proven the practicability of the theory in comparative trials. In every section visited in the East and West this plan is found being rapidly adopted by the better class of farmers. The manufacturers of farming implements, realizing the importance of being able to meet the demand for a class of tools that will be especially adapted to such work, are fashioning many new models of cultivators with this end in view.

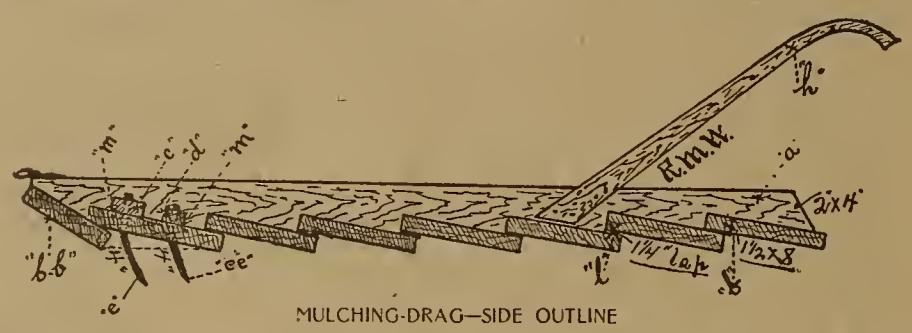
Probably the most important feature, and essentially the main design of shallow cultivation, is to provide a mulch of loose soil to arrest evaporation without disturbing any part of the root system of the plant.

I can remember when a boy I was taught that the corn crop would be a failure unless it was decidedly "hilled up" at the last cultivation, much after the manner of banking up celery for winter, while the first cultivations were made only deep enough to loosen and uproot the weeds. Reversing this order of things, we now send the cultivator-teeth down as deeply as practical and as close to the row as possible without tearing out the corn in the first cultivations, gradually lessening the depth and increasing the distance from the row, until we finally reach the point where the object is to keep the surface-soil broken and the crust loosened after rains, during wet periods, and to provide a dust mulch of a few inches of the top soil when dry.

For the purpose of keeping the field well mulched and free from weeds the home-made affair described herewith has been found superior to any patented implement, and any one having a hammer, saw and auger and the material for building can construct this mulching-drag at very little expense.

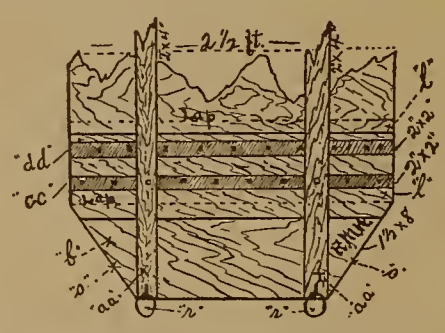
The one used last season was four and one half feet long over all, and two and one half feet wide. These measurements, however, may be varied to suit the ideas of the operator or the purpose for which they are used, as where they are used among small fruit the drag should be made wider and longer in proportion.

The bottom boards, "b," are of hard wood one and one half inches by eight inches by two feet six inches, or the desired width of the drag. Spike these firmly together, giving at least one-and-one-fourth-inch lap, as shown at "l," using the number required to secure the length wanted, leaving the board "bb" until last, to be fitted to binding piece "a" at a greater slope or angle than those in the body of the drag, for the purpose of passing more readily over rough ground or clods. Piece "a," two by four inches by length of drag, is next held along the squared ends of boards "b" and carefully marked with pencil for lines to saw out "steps" to fit snugly on top of drag-plank. Take two pieces, "c" and "d," two by two inches or two by three inches, and saw flush with width of drag, and fasten to front plank as shown at "m," notching into "a" to fit over them. Firmly spike or bolt "a" to bottom boards "b," sawing "a" at front at about the angle shown, and spike on end board, "bb," first sawing each end at the slant shown at "s;" that will, as is obvious, make it easier in passing through narrow rows. Have teeth made at your blacksmith's shop, or use old ones from a worn-out harrow, and have them bent at such an angle that when placed in drag, as at "e" and "ee," they will have slight slant to the rear. They should be eight and one half inches long for "e" and seven and one half inches for "ee," and should have thread and tap on upper end, to secure a rigid set. Bore holes for spike-teeth as at "cc" and "dd," zigzagging as shown; when spikes are placed there will be about four inches clear below line of lower edge of drag. Fasten large rings, "r," well to front on "aa," in which to hitch short spreader-chain. For convenience in turning at end of rows bolt on the handle, "h," to each outside of "a;" these may be taken from a cast-away plow or cultivator.



MULCHING-DRAG—SIDE OUTLINE

This mulching-drag will loosen up fairly well-firmed soil with the two lines of teeth in front, and will thoroughly pulverize, level and firm every inch of surface covered, leaving a perfectly loosened mulch, in which all sprouting weed-seeds are destroyed and which will retain the moisture in the lower soil more satisfactorily and at less expense than by any Other means. The dragging should be repeated as often as conditions make it necessary.



SHOWING FRONT TAPER AND ARRANGEMENT OF SPIKE-TEETH

For preparing the corn-field for seeding to wheat the operator will find this to be an ideal tool. I use it in potatoes, beans, celery when young, and all other crops cnltivated with horse-tools, and always with the very best of results.

R. M. W.

## THE FARM GIRL

A good friend of ours when a young man made himself famous by writing and reading in public a fine article on "The Training Up of Youth." In after-years he had one girl, and it was remarked by those who had heard the aforesaid article, telling just how girls onght to be brought up, that our friend's theory and practice failed somehow to connect. For some reason he conld not make ends meet in this respect, and we were all very sorry for him.

And so it may be somewhat dangerous now for me, who has never been so fortunate as to have a girl to bring up, to say anything about the farm girl; and yet is it not fair and right that she should have some attention paid to her? The farm boy—why, he is the subject of hundreds of articles by those who think they know just how he ought to be treated by his father and mother. His room is carefully described, and we are told how we ought to try to interest him in farm matters, so that he will not want to run away to the city; but the girl, who thinks or cares for her?

But it is a serious matter we have to deal with when we come to think about the farm girl. She will be the farmer's wife of tomorrow if some city or town chap does not come in and carry her away to grace his home, which I do not blame him for doing; it is the most sensible thing he could possibly do. Still I would far rather see her stay among the birds and the flowers and the sweet scenes of the country than to know that we have lost her, even to make our city youth happy.

But where are the girls of the farm to-day? I do not know. Do you? Almost every week some one calls at Clover-leaf Farm and asks, "Do you know where I can find a good girl to work for me? My wife is sick, and we need some one to help us a few weeks." And I do not know where to send him. I try to think of the girls that used to be in the neighborhood. One of them is teaching school—a grand and noble occupation. Another is fitting herself for the same calling. We are proud of the reports which come to us from her. Still another is "doing dressmaking" in town. So I go on, and come back just where I started. I do not know of a single girl that could be had for love or money.

Now, I cannot say that I blame the young women for wanting to do just as well as they possibly can. It is all right to reach ont for the very best that is within touch. Teaching, type-writing, sewing, working in the factory, serving as a clerk in the store—these are all honorable professions. But so is farming. I wonder if it can be that it is because our girls really prefer to be shut up in the factory, or bend over the sewing-table from morning until night, that they go away from the farms? I do not qnite think so. What then?

I believe it is because the girls are dissatisfied with the life on the farm. It is not simply because they can earn a little more money in town than they can on the farm, although, no doubt, some do leave us on that account; but the prime motive, so far as my observation goes, is lack of real love for the country home. A feeling of sadness came over me when I wrote that last sentence, for I do not like to think that any of onr boys or girls should ever cease to love the scenes of the country. And I do not believe they would if their home surroundings were just what they should be. That may hurt some fond father or mother who has helped Mollie pack her trunk to go away to town. I think I can feel something of the sorrow which accompanied her going away. But let me ask that mother whether or not she has not by herself talking slightingly of the farm and its work, by the way in which she has educated her daughter during the early years of her childhood, helped to bring on this feeling that the country is not just the place for a live girl or boy. It is not exciting enough. Nothing ever happens in the country. Life is dull here. Is not this the common trend of the conversation?

Well, if that be true, what shall we do to keep our girls with us? Every farmer father and mother must answer that for himself or herself. Do you think if the home were as beautiful as it should and might be with the outlay of a little care and not a great deal of money; if the girl's life were full of bright, cheery and helpful things, as every farmer girl's life might be; if all that is said and done in the home should be such as to deepen the girl's love for the country and the country home; if, in short, the farm were allowed to weave its mystic spell around the farm girl, that she would be so anxious to get away from it all and shut herself up in the hot, dusty, lonely city? I do not.

And I feel all the more sorry to see our girls go away when I think of the time to come—and it surely will come—when she will long to get back home to the farm. And it may not be possible to do so then. Life's duties press hard upon us as we grow older, and the thing we would like to do and which we wish we had done we cannot possibly do now. The heart may grow weary thinking about the home back in the country, where all was so free and pure; duty says, "No, here is your place; stay in it."

Well, this, then, is a plea for the country

girl, a direct appeal to the fathers and mothers who have girls yet untouched by the spell of other kinds of life. What do I ask? Only that you shall do or say nothing which will tend to wean the girls away from the farm home. I know how life presses in upon us sometimes. Weary in body, we cannot help thinking how good it would be if we could find some place where we might throw off care and rest. The words we are apt to speak at such times are the words upon which our boys and girls seize to foster the spirit of uneasiness, which ends in the determination to go away and see for themselves what the city is like. If we were to stop when these words rise within us, and rest awhile, the inclination to speak them would soon pass away, and we would see that, after all, every spot and place in all this world has its hard days and its heavy burdens. The farm has as few as any. The morning's light would bring rosier outlooks.

Then, too, the country home should be just as full of brightness as flowers, birds, trees, pleasant surroundings generally, indoor and outdoor, can make it. Good books and papers have a helpful influence which cannot be estimated. But birds and flowers and cheery surroundings are not quite enough to satisfy. I do not know why the farm girl should not have a pecuniary interest in the farm stock—the hens, the lambs, the calves—just as much as her brother. Do you?

It appears to me that were the farm girl treated thus, as a partner in all that pertains to the country home, it would save them and their parents many a heartache in days to come, and instead help memory to weave golden spells over the old farmhouse and its scenes. This is worth while when we think what the farm girl of to-day may be to the world of to-morrow. God bless the farm girl! May her heart be kept pure and true to her home in the country!

Edgar L. Vincent.

### FAILURE ON THE FARM AND IN THE CITY

The person who is inclined to take a pessimistic view of farming on account of the number of failures in that line should not give city life and occupations undue credit. The world in general measures farm life by its failures and city life by the few isolated cases of success. There is no single occupation followed by man where there are so few utter failures as in farming. The fact that a man without ability to make a living in any other way can make it by farming is certainly no discredit to the farm. In every community we see such farmers. The great mass of chronic renters are that sort of men. They lack in education or natural ability for business life, and possessing the physical strength for following the plow they earn a living from the soil by the sweat of their brow, and if industrious live in plenty, too.

To find the hell of poverty we must visit the city. You will never find it in the country. The farm-poor are aristocrats compared with the poor of the city slums. It is rare, indeed, that a farm family suffers for want of food or shelter; so rare that many of us who have always lived on the farm never have recollection of a single case in our neighborhood. Even with my acquaintance in the little country towns about me I cannot say as much of the city. On the farm misfortune may overtake a man and leave him stranded—we have all seen such cases—but he does not stay down. In a few seasons we see him on his feet with plenty to eat and wear. A man once down in the city, and the misery, the temptation and the very air about him add to his burdens of despondency and stifle all ambition or hope in him, and he sinks, dragging down with him his dependent ones.

The great mass of the inhabitants of the city are merely making a livelihood. Their salaries are made to meet their daily needs—but little, if any, more. For every man who has money invested in a business of his own there are a score working for or under him. The one is the representative of the city man. The successful farmer does not represent the farmer class in the public mind. Speak of the city man and we picture a fine house with all modern luxuries and improvements, social privileges, operas, travels, pleasure resorts, etc. Speak of a farmer and we have quite another idea. We see a man roughly clad, of uncouth dress and manners, toiling from early morning until night. We see him living on coarse fare, seeing little of life but work, and knowing little else in life but the continued grind of ceaseless labor—a veritable "man with the hoe." How wide of the mark is this of the representative farmer? As wide as our other picture is of the representative city man.

There seems to be some change of public opinion in our favor of late, but we will be forced to stand this condition of things for some time to come. There are few of us who have not felt the tingle of righteous indignation at the hands of those "just a farmer" people. But if we will pause and reflect for a moment we will find we can laugh and let it pass for what it is worth. We can well be proud of being "just a farmer," if we may aspire to that honor.

Honest and persistent labor with body and mind insures success on the farm. We cannot hope to succeed without directing labor intelligently. A farmer should enjoy luxuries and leisure for himself and family, and does. A farmer, however poor, may feel that his is an occupation wherein there is as many opportunities for success as any occupation followed by man. And there is this he should always bear in mind: The profession is never overcrowded, and soul-destroying competition will not crowd him down.

Jim L. Irwin.

### SLEIGHT IN CHOPPING WOOD

I am fairly well acquainted with the rural sections of southern Ohio, and I have noticed of late years that not more than one young man or boy in twenty I have seen chopping wood chops with any skill. There is generally so little chopping to be done that the sleight is nearly lost. Yet to those who have little strength to spare, and still need to chop, an explanation of the handy knack of doing it may be welcome. This explanation applies to a right-handed chopper, where timber is not heavy and is subject to slight personal modifications.

Shave the ax-handle down till it will bend and spring, but do not overdo this. Stand up straight and close to the wood, or on it. Grasp the end of the ax-handle with both hands close together, and draw the handle through the right with the left, so that by the time the ax reaches the level of the top of the hips the hands will be at opposite ends of the handle and the handle will be nearly or past horizontal. The ax can come up in front of or to the right of the right hip, but keep the ax near the body. Throw the ax back just above the shoulder, but to the right of it. Understand, in raising the ax from the ground, do not bend over and catch the handle with hands wide apart, and then raise the ax out from your body with the right hand, holding the handle about midway, so that the ax is raised by leverage of the handle and a lift of the extended right arm, making it hard for arm and back. Do not raise the ax high over the shoulder—a needless lift. The higher your ax is over the shoulder as you begin to swing it forward, the greater the strain. Swing your ax forward as well as upward as you raise it from your shoulder, and do not put your best strength into this movement, but save it till the ax starts more directly toward the wood, then fling it home with a vim, letting the handle slip through the right hand, ending with hands close together at the end of the handle, and the spring of the handle will fling the ax free and throw your chip, and the chipper and the ax will be in ready position for quick movement. All this will be just the other way if you strike a dead blow with the right hand still holding the handle midway. Remember, the closer the ax is to your body as you raise it, the lighter it is to you; and the more direct the motion of the ax toward the stick, the more your strength will count in flinging it.

V. E. T.

### A GOOD NEIGHBOR

A few years ago a friend of mine told me a story that is worth repeating to the largest possible audience:

"Not long ago," said he, "I was in need of a small amount of money. The simplest way to get it was to sell a cow, and sell her cheap. Meeting a neighbor, I asked him if he wanted to buy a good cow. It happened that he needed one, and went at once to see my 'bossy.' Satisfied with her and the price I named, he immediately paid for the cow and led her home. A few weeks later I met him on the street and he handed me a five-dollar bill, remarking that he owed that amount because I had sold the cow too cheap. He did not care to profit by my necessity. He was right. I had offered the animal for less than her real worth in order to make a quick sale."

"How would you like to have such a neighbor?" he asked.

"I could not hope for a better," was my answer.

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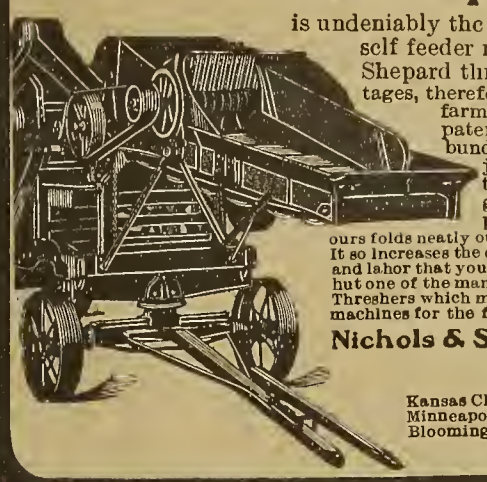

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## Notes From Garden and Field

Bees and Honey.—"Why do you, a busy man, want to bother with bees?" was the question directed to me by my brother Friedemann, an expert beekeeper, well known among the apicultural fraternity of the United States. "I can raise honey more easily and cheaply than you, and furnish you all you may want, saving you the necessity of spending time and effort in a (to you) strange and uncongenial field." I told him then that I wanted a few colonies of bees on the place for various reasons. Above all, I wish to be able to tell people that I do keep bees, even if on a small scale. Then I desire to have the pleasure of eating honey made on my own premises; and last, but not least, I want the bees on the place to make the trees and bushes, etc., more fruitful. For the last two seasons I believe every farmer in the land who raises fruit and buckwheat, etc., or has honey-bearing plants and trees in his vicinity, should, at least to some extent, be a keeper of bees. I confess that I do not like the bee-sting, and for that reason I do not handle bees as professional beekeepers do. In fact, I hardly care whether my hives have movable frames or not. I never take any of the frames out for examination. Provided with a bee-veil, I can hive a swarm with some degree of safety and comfort, put on empty cases or take off filled ones. And that is about all that is necessary; the bees themselves do the rest. But what a lot of enjoyment I get out of it watching the hives when the bees are at work in the height of a honey-flow! I visit my few colonies a number of times a day, and what great satisfaction it affords me to take off a well-filled case of honey and show it to my friends, and have it on my table! I do like good honey, and so does every one in my family, and it is decidedly wholesome. We can eat all we want of it without fear of injurious effects. There are only a few things that the farmer beekeeper has to learn about the bees in order to be fairly successful—successful to the extent of having all the honey the family may want. And if he has learned these few things well he will get interested in his bee friends, and get better and better acquainted with them, so that in the end he will lose much of that unreasonable fear of bees which comes from lack of knowledge of their ways and habits. And when the bees find a home on more of our farms there will be an end to that hue and cry against them on account of their "puncturing fruit," and less injurious spraying of fruit-trees when in full bloom.

Growing Cabbage-seed.—D. W. H., Jr., of Fremont County, Idaho, asks whether cabbage that fails to head out this year, if kept over winter and planted out in spring, will produce seed. Of course it will. It is the nature of all biennials to make a plant one year and produce seed on that plant the next year. It is by no means necessary that such a plant should be well developed the first year, especially not in an artificial direction. An onion, even if only half grown in the fall, if left out in the field where it grew, or wintered over and planted out in spring, will surely produce seed. Start a cabbage in early fall, winter it over, and set it out in spring and it will produce seed. So it is with celery. In fact, if we sow celery-seed too early under glass, say before the middle of February, and transplant to open ground early in spring, we run the risk of having a good portion of the plants go to seed rather than make good stalks for the table. But I am very far from recommending this method of growing cabbage or celery seed. It may do to grow it thus once, but if continued it would be very sure to give a poor quality of seed. In order to uphold the high quality of any strain of celery or cabbage the seed stock should be grown with as much care, and possibly with more, as is necessary to bring the vegetable up to its highest standard of excellence. To make the best of cabbage-seeds the first step is to grow a perfect head. And so it is with celery, etc. I prefer to buy my cabbage and celery seed, having it grown by parties who make a business and a specialty of the particular vegetable, rather than grow it myself. It is not always easy to winter early cabbages over successfully for seed purposes, especially in our climate. I believe that seed-growers plant early sorts (when to be grown for seed stocks) quite late, so as to have them just come to a head before winter. Sometimes I have a lot of cabbages in the fall which have not had a chance to head properly for table purposes, or have made large, loose heads. There is a way to make them head up quite solidly before spring. Open a trench wide and deep enough to set the plants, pulled up from the patch with some soil adhering to the roots, into the bottom of the trench, cover the roots with soil and the heads with straw at the approach of winter, and then cover the whole with soil. In spring the cabbages will have made tender and solid heads.

Crimson Clover.—On my soil, which is a good clay loam, free from stones, and underlaid with stiff clay—regular pipe-clay—I have not yet succeeded in wintering a large enough share of the crimson-clover plants to make a crop, although they start off well in the fall and look all right at the beginning of winter or even sometimes during a January thaw. What few plants do winter all right, however, make a strong growth in spring, and look beautiful with their large crimson heads when in full bloom. And yet this plant has a great value for the orchardist in western New York (and other places having a similar climate) who has soil of a somewhat sandy character and an open subsoil. In my brother's orchards, in Ontario County, the crimson clover, intended chiefly for the purpose of supplying humus to the soil, has again wintered beautifully and made a tremendous growth—so big, indeed, that he preferred to cut it rather than to plow it under green. A field of it there is just as much of a sight as it is in Maryland, Virginia or North Carolina, and it is just as useful for feeding or soiling purposes. Last winter I saw some crimson-clover hay in his barn which appeared to be a most excellent article of hay, and really tempted me to make another trial with this clover. He uses it mostly for his Belgian hares, but undoubtedly it would be most valuable for any kind of farm stock. I do wish I could raise it for my horses and cows. It would be the means of saving much grain and expense for bran, etc. But there is no use to try it here on clayey land. My brother's orchards have a deep, gravelly loam, with plenty of stones, and whoever has that class of soil should try crimson clover. Seed may yet be sown after this gets in print. Hairy vetch has been much recommended as an orchard cover plant, and I believe is as good for Belgian hares and other stock as crimson clover. I did try this once, but without meeting with much success. Yet it was soil of extremely inferior quality, and I will try it once more in my orchard. Seed may be sown in August, possibly even later.

T. Greiner.

## Orchard and Small Fruits

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### INQUIRIES ANSWERED

**Cherry-tree not Fruiting—Moss in Lawn—Care of Lawn.**—L. K., New Albany, Ind., writes: "Can you tell me what is the matter with a May cherry-tree that I have? It is a large, healthy tree, and when in bloom looks like a monster snowball-tree. It is a very large tree, but it bears very little fruit, and drops its leaves most of the summer. It is in the front yard, with a southern exposure.——Why does moss grow in with the grass on my lawn. Where the house next door shadows it in the afternoon I notice the moss is growing this year. I have a beautiful lawn, and I am afraid this will have a bad effect. What will help it?——With what shall I feed the grass, and how often does it need to be fertilized? Can you use too much water on a yard in summer?"

Reply:—There are many reasons why trees are unfruitful, and it is difficult to state the exact cause without knowing a great many particulars, of which you leave me in ignorance. Very often the absence of fruit results from the lack of pollenization, the tree being sterile to its own pollen. ——The moss comes into your lawn where it is shaded because the conditions are such that it is not favorable to the growth of grass. I think your best way of keeping it out would be to liven up the soil by applying a light coating of air-slaked lime, say about one half peck to a square rod. In addition to this, if you would apply some good ordinary fertilizer at once, and thoroughly well-rotted stable manure in the autumn, you would probably bring about conditions which would be unfavorable to the growth of moss.——As for best manure for grass, on my lawns I prefer to use ground tankage at the rate of about eight hundred pounds an acre, applying it early in the spring, and with it use nitrate of soda at the rate of one hundred and twenty-five pounds an acre. However, for lawns that are in bad shape, it would be very desirable, in addition to this, to put about one half inch of fine, rich loam over the surface, and then sow grass-seed. In this latter case the application should be made in the late autumn or early spring. On the average soil that is well drained you can hardly use too much water for the best growth of a lawn.

**Fire-blight on Apple-trees.**—H. D. C., Mayfield, Ky. The apple twigs received appear to me to be injured somewhat by a form of blight, and I am inclined to think it a sort of spur-blight, or fire-blight, as it is sometimes called. This trouble is very common in some sections, and especially in some years. It is a similar blight to that which so commonly attacks pears through the Eastern and Southern states. Where it is possible to cut off and destroy this injured part it would probably be the best treatment; but in the case of large trees this is quite impracticable, and it is customary to let the matter stand without treatment. As it is only very destructive in occasional years, I hope that the present infection may be the last for a good while to come.

**Pruning Apple-trees—Fire-blight.**—L. P. S., Denver, Col. As a rule it is a good plan to prune apple-trees as little as possible and yet keep them in good shape. You will find that when the trees commence to bear heavily they will thin out sufficiently in the center of the tree. In the Western states I think it desirable to prune so as to encourage a much thicker head than is generally considered best for Eastern states, where the climate is more humid. June is a good month in which to do pruning, since the wounds heal over very rapidly. Heavy pruning is to be avoided under almost any circumstances, and it would be much better to do a little at a time.——The leaves that have withered on your trees are probably those that have been affected with the ordinary fire-blight. These should be removed and burned.

**Injured Strawberry-plants.**—M. D. C., Broken Bow, Neb. The reason that the fruit that set on your strawberries failed to mature in good shape and formed nubbins in place of berries is, I think, due to their having been injured last winter by not being sufficiently protected. Anything that injures plants severely in winter, or injures the flowers while they are in bloom, might be the cause. A hail-storm, a light frost or a severe hot wind will cause nubbins to set. It is quite possible that the nurseryman of whom you bought your plants furnished you only "Crescent." If so, you would get flowers without much of any fruit. If he furnished "Beder Wood," however, you should get the fruit if the conditions were favorable. The latter I regard as one of the best varieties for beginners, as it is perfect in flower and very prolific.

**Gum on Cherry-trees.**—B. L. S., Freewater, Oreg. There is no way of stopping a gum from running from your cherry-trees. This is probably due to a diseased condition of the tree, and the best way to improve its condition is to try and bring about as healthy surroundings as possible. To do this you should see to it that the soil is well cultivated, and that the tree has plenty of light and air. Gum will run from any wound that is made on a cherry-tree during this season of the year, and the injuries caused by borers frequently exude it in large quantities. If the gumming of your trees is due to insect injuries it will be very much localized, and will probably only be found in a few places, and by taking the gum away you will find the work of the borer; but I take it from your card that the disease is widespread through the tree, and that it is the very injurious gumming disease of your section.

**Plant-lice on Cherry-trees.**—F. S., Amsterdam, N. Y. The louse which infests your cherry-trees is a pest that is difficult to get rid of. Probably the best treatment is spraying the trees with a strong decoction of tobacco-water. The best way of making this, I think, is to put tobacco-stems in the bottom of a barrel, and then add scalding water until the decoction is the color of a strong tea. This should be used without very long standing, and is a very good remedy for lice. Since the injury has gone so far I doubt if it will pay you to use any remedy for them this season. In the case of small trees, and where the branches are easily reached, these insects are generally gathered together on the ends of the branches, and may be most easily destroyed by dipping the ends of the branches in a basin filled with tobacco-water. The insects are much more thoroughly reached in this way than when the material is sprayed upon the tree.

**Strawberry Culture.**—F. A. T., Bloomfield, Conn. The best time to set strawberry-plants is in the spring of the year, and seldom at any other season are they planted by the commercial grower in the North. For home use, however, if you want a small bed, it will probably be desirable for you to set them out as soon as you can obtain plants of this year's growth. This should be some time about the middle of August. If the weather is moist you will have no trouble about making them grow, but if it is very dry they will require considerable attention in order to get good results. Plants set out in August will bear the next year, while the plants set out in the spring will produce scarcely any fruit the first year. The best way for you to do, if planting for home use only, would be for you to set the plants about eighteen inches apart in rows three feet apart. Allow about three good runners to grow from each plant, and after they are rooted pinch off all others. The best way for a beginner to start in this as a business is to plant not more than a quarter of an acre, and plant in the spring if it is intended to grow them for commercial purposes. In such a case the plants should be set out about two feet apart in rows four feet apart, and the intervening space kept cultivated with a horse through the season, and the rows allowed to take on a matted form about eighteen inches wide. If you watch the operations of other growers you will have no trouble about growing this fruit. Take special pains to see how growers in your vicinity are managing their new beds this year, as from such observations you can gain much information.


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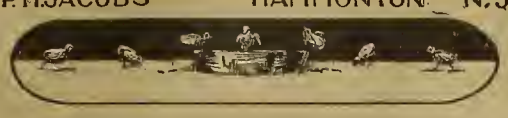

## FRESH EGGS AND MARKETS

THERE are various articles of food which can be produced hundreds of miles away from the place of consumption, and which suffer no injury or deterioration from transit; but others are perishable in their nature, and even when not actually perishable do not retain the quality which is their characteristic, nor are they absolutely fresh. In these days of rapid transit, of refrigerators, etc., a great deal has been done to minimize the difficulty indicated, but distance must always be an important factor in this class of food.

Eggs are included in the list of perishable articles, but consumers do not realize that to obtain an egg in its very best state and while its nutritive value is greatest it must be absolutely fresh—not more than two or three days old; and yet multitudes of those who by reason of their ability to pay for good quality ought to create a demand for the best are content to be put off with eggs in which, to say the least, the first indication of decomposition can be traced. For really fresh eggs it is essential that a price be paid which is remunerative to the producer. Some producers do not feed their hens during the greater part of the year, but allow them to find their own sustenance. If eggs were not perishable articles our farmers could not hope to secure the highest prices. Consumers, therefore, should realize the fact and be willing to pay a reasonable price for absolutely fresh eggs. When once they understand how superior these are to those not fresh they will do so. If consumers will insist upon having the best (which some do), and be willing to pay fair prices for it, they will obtain an article of food superior to anything that can be used, considering the various modes in which eggs can be used and their high nutritious value.

## SHIPPING POULTRY

Poultry-raisers often complain of the small prices they get for their birds when they are sent to market, but it is surprising to one who walks through a market at a time when there is an oversupply of poultry that many of the lots exposed on the sidewalks sell at any price. Such specimens of poultry as are there seen are enough to forever disgust one with the whole feathered tribe as articles of food. Old birds and young birds, fat birds and lean birds, birds dressed and undressed—and some half dressed—roosters, old hens that have been killed to prevent their dying of old age, chickens frozen and thawed into all conceivable shapes, and chickens whose color is blue, white and variegated, are seen. It is no marvel that the market is dull and that prices rule low.

But if the birds themselves are bad the packages are infinitely worse. Old flour-barrels that have taken their turn in holding bran, potatoes and other vegetables, and boxes that have stood outdoors until they are weather-beaten, are the uninviting packages in which poultry is often sent to the market, and the shipper wonders why his birds fail to tempt the eye of the epicure who may be searching for fine poultry. A little reason would convince any one that all this is wrong.

## PACKING EGGS

A few of the methods of packing eggs dry for keeping have been tried at the New York Experiment Station and reported upon. When fresh the eggs were wiped with a rag saturated with fat or oil which had been mixed with some antiseptic, and were packed tightly in salt, bran, etc. Eggs packed in salt during April or May, and which had been wiped with cotton-seed oil to which had been added boracic acid, kept from four to five months with a loss of nearly one third, the quality of those served not being good. Eggs packed in bran after the same preliminary handling were all spoiled after four months. Eggs packed in salt during March and April, after wiping with vaseline to which salicylic acid had been added, kept four or five months without a loss; the quality was much superior to that of any ordinary limed eggs.

These packed eggs were kept in a barn cellar, the temperature of which varied from sixty degrees to seventy degrees Fahrenheit, and each box was turned once every two days. Little difference was observed in the keeping of fertile or infertile eggs, and no difference was noticeable in the keeping qualities of eggs from different fowls or from those under different rations.

## EGGS AND FOOD

It is possible for one to feed corn all the year and get eggs, for sometimes corn is a necessity, especially in cold weather. No matter what may be urged, it is an impossibility for hens to produce eggs from corn alone, because the egg material is not there. One cannot get something from nothing. It must not be overlooked that there are some elements stored in the body of the fowl, and it will lay with no food but corn for awhile; but when corn is the only substance given there will arrive a time when the egg supply will cease, because the hen not only lacks the essential materials, but becomes too fat. Even when nothing but corn is given a hen will lay, but not her full quota, for if she cannot get enough nitrogen and mineral matter in a day she may do so in several days; hence, one may get eggs, but not as many as should be the case. When hens are very fat they may be reduced to a poor condition, as is the case when they are sitting. But the better plan is to give nothing but grass during the day, and at night feed whole oats. A few grains of wheat should be scattered in litter, so as to make them scratch. If the hens are too lazy to scratch give them nothing to eat for twenty-four hours, or longer if necessary, and then make them work for all they get, making oats or lean meat the principal food. The exercise will get them in a good condition and they will soon begin to lay.

## INDICATIONS OF THRIFT

Whenever hens or chicks are always ready to scratch, and seem to be busy at all times, you need have no fear of a failure to get eggs from the hens or a rapid growth on the part of the chicks. Scratching is their work, their mode of occupying and passing away time, and indicates business. The hens that keep busy scratching do not contract the vices peculiar to those fowls that have nothing to do, and they keep fresh and in good health. The bright red comb, clean plumage and plenty to do on the part of the hens indicate that egg foods are unnecessary and eggs plentiful.

## INQUIRIES ANSWERED

**Probably Lice.**—E. P., Monmouth, Iowa, writes: "My hens get weak, live from ten days to three weeks, and some die. They are fed mixed grain, and have the run of the farm."

REPLY:—Probably lice annoy them. Grain during warm weather is also injurious, being too heating. Drench the poultry-house with kerosene emulsion or use the advertised lice-killers. Omit grain foods.

**Loss of Locomotion.**—L. S., Hoyes, Md., writes: "My fowls lose the use of their legs, although apparently healthy, and none recover. I feed wheat, buckwheat and soft foods."

REPLY:—Have the roosts low. Keep the afflicted birds on straw—no roosts—and omit all grain food, allowing one ounce of lean meat to each hen once a day, and chopped cabbage at night. The birds have been fed too heavily on grain during the warm season.

**Limber Neck.**—M. Y. V., Owenton, Ky., writes: "Please give a remedy for the disease known as limber neck, which destroys fowls in this neighborhood."

REPLY:—The disease has been investigated by many, and seems to prevail mostly in Kentucky, Tennessee and northern Alabama. It occurs generally when birds have fed on maggots. Molasses-water has been recommended as a remedy with success, but no other method has saved the birds afflicted with the disease.

**Feeding Chicks.**—J. B. P., Mill City, Pa., writes: "I have lost a great many chicks and young turkeys this year. When first hatched they get bowel trouble. I feed stale bread, hard-boiled eggs, middlings, etc. Do turkeys require salt in their food?"

REPLY:—It is possible that the large lice are at fault, especially during warm weather. Give the chicks pin-head oatmeal and millet-seed only during the first week, and then add stale bread dipped in fresh milk. Give turkeys the same, but also give curds, allowing hard-boiled eggs twice a week. Feed chopped onion-tops, lettuce or any green food they will accept. Salt is not necessary. Never leave any food over after feeding. Give cracked corn and wheat when the chicks are older.


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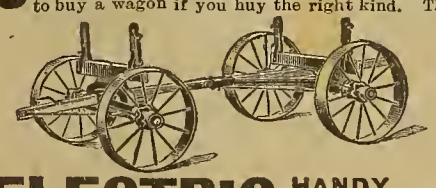

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# QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

**Green Lice on Plants.**—T. F. K., Sycamore, Kan. Plant-lice do not come from eggs laid by a moth. Kerosene emulsion is the standard remedy.

**Cabbage-worms.**—C. R., Hackberry, Ariz. Common remedies for the cabbage-worm are wood-ashes, tobacco-dust, air-slaked lime and fresh pyrethrum powder, dusted on while the plants are wet with dew. Spraying with Paris green, one pound to one hundred gallons of water, is safe until the cabbages get too large.

**Keeping Ice.**—F. M. G., Covington, Ind., writes: "Which is the better way to keep ice, leave space between the inner and outer walls of the ice-house empty or fill it with sawdust?"

REPLY:—If it were practicable to make a perfect dead-air space between the walls it would be better to leave the space empty; but as it is not, it is better to fill it with dry sawdust. The sawdust is used for the purpose of getting a dead-air space.

**Sugar-cured Bacon.**—B. A. W., Xenia, Ohio. Boil and skim a pickle made of six pounds of good coarse salt, four ounces of saltpeter and six pounds of brown sugar for every one hundred pounds of meat, with water enough to cover the meat when closely packed, skin side down, in a clean, sweet meat-barrel or large stone jar. When cold pour the pickle over the meat. Allow the bacon to remain in the pickle for about six weeks, then take it out, and smoke it a light brown color; sew up the pieces in muslin, whitewash the sacks, and hang them up in a dry, cool place.

**The National Road.**—W. M. P., Poortith, N. C. The National, or Cumberland, Road was the first great internal improvement made by the federal government. Congress made the first appropriation for the making of a national road, to begin at Cumberland, Maryland, and run indefinitely westward, March 29, 1806. From that time on until 1838, when the construction was turned over to the several states through which it passed, sixty bills were passed appropriating in all $6,821,246 for its establishment, extension and repair. There was much opposition to every bill, and President Monroe, in 1822, vetoed a bill for its repair on the ground of unconstitutionality of any act of Congress providing for internal improvements. Complete work on the road by the federal government ended a short distance west of Springfield, Ohio. Unfinished work extended further westward, and after 1838 acts were passed by the Ohio legislature providing for completing the unfinished parts and extending the road to the state line. It was a broad, smooth Macadam road. Stone bridges arched the streams. Portions of the road were constructed at great cost. In all it was a fine example of road engineering. The development of railways stopped the extension of the work by the states.

**To Get Rid of Fleas in the House.**—J. P., Maza, N. D. A bulletin of the Division of Entomology, United States Department of Agriculture, entitled "The Principal Household Insects of the United States," gives the following remedies for fleas in the house: "Flea larvae will not develop successfully in situations where they are likely to be disturbed. That they will develop in the dust in cracks in floors which are not frequently swept has been observed by the writer. The overrunning of houses in summer during the temporary absence of the occupants is undoubtedly due to the development of a brood of fleas from eggs which have been dropped by some pet dog or cat. This overrunning is more liable to occur in moist than excessively dry summer weather, and is more likely to occur during the absence of the occupants of the house, for the reason that the floors do not, under such circumstances, receive their customary sweeping. The use of carpets or straw matting, in our opinion, favor their development under the circumstances above mentioned. The young larvae are so slender and so active that they readily penetrate the interstices of both sorts of coverings, and find an abiding-place in some crack where they are not likely to be disturbed. That it is not difficult to destroy this flea in its early stages is shown by the difficulty we have had in rearing it; but to destroy the adult flea is another matter. Their extreme activity and great hardiness render any but the most strenuous measures unsuccessful. In such cases we have tried a number of the ordinarily recommended remedies in vain. Even the persistent use of California buhach and other pyrethrum powders, and, what seems still stranger, a free sprinkling of floor-mattings with benzene, were ineffectual in one particular case of extreme infestation. As a palliative measure the plan adopted by Professor Gage, in the McGraw Building, of Cornell University, may be worth trying. Professor Gage tied sheets of sticky fly-paper, with the sticky side out, around the legs of the janitor of the building, who then for several hours walked up and down the floor of the infested room, with the result that all, or nearly all, the fleas jumped on his ankles, as they always do, and were caught by the fly-paper."

# VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

**Garget.**—S. A. L., Decatur, Ala. Please consult answer to A. L. C., Mercer, Pa., in FARM AND FIRESIDE of July 1st.

**Garget.**—D. V. C., Lexington, Ill. What you describe are mild attacks of garget. They will cease if the cow is oftener and more thoroughly milked.

**Whether with Calf or not.**—V. Z., Verona, N. D. Your cow surely is not with calf as long as she comes in heat every two weeks. It is far more probable that she suffers from diseased ovaries.

**Requires a More Thorough Examination.**—S. C. C., Durant, Miss. The symptoms of your cow, as you describe them, are such as are observed in cases of tuberculosis in the bones; therefore, your case will require a more thorough examination.

**Expelling So-called Screw-worms.**—J. B. D., Humansville, Mo. If one only wants to kill the maggots, and does not care how much he may injure or irritate the wound or pain the animal, he may take your advice and use benzene, gasolene, coal-oil and a great many other things.

**Milk Coagulates Too Soon After It Has Been Drawn from the Cow.**—J. W. T., Bristol, Ind. If the milk is normal when drawn from the cow, but coagulates too soon afterward, the fault is not with the cow, but either with the vessels or the place in which the milk is kept, or with the temperature, which may be too high. The remedy consists in removing the cause.

**Possibly an Incomplete Luxation of the Patella.**—H. S., Monroeville, Ind. What you attempt to describe may possibly be an incomplete luxation of the patella, or knee-pan, but as your description is so vague as to make a reliable diagnosis an impossibility this is by no means certain. Therefore, I have to advise you to have your horse examined by a competent veterinarian.

**Spoiled Udder.**—M. T. S., Choska, I. T. The fore quarters of the udder of your cow, it seems, have been spoiled or prematurely dried by a neglect of milking. There is a possibility that the production of milk will be restored when the cow has another calf, provided the milking will then be properly attended to, but until then any attempt to restore the yield of milk from the fore quarters will be in vain.

**Hollow-horn.**—A. B. T., Bardstown, Ky. Truly old prejudices die hard. There is no disease which might be called "hollow-horn." If you will take the trouble of making a little investigation you will find that all grown horned cattle have hollow horns. I know that the above term is sometimes indiscriminately applied to several different diseases marked by emaciation and a more or less rapid decline. Tuberculosis and even the abnormal condition caused by starvation and neglect are some of them.

**Bitten by a Rattlesnake (?).**—G. R. C., Plains, Mont. Unless you have seen that your yearling colt was bitten by a rattlesnake I must doubt it, because the symptoms you describe do not correspond to those usually observed. In the few cases in which a horse has been bitten by a rattlesnake (usually in the nose, lips or cheeks), that came under my observation, a subcutaneous injection of tincture of iodine has done me good service, but such injections must be made as soon as possible. How such an animal should be treated four or five weeks later I cannot tell. It will undoubtedly depend upon the morbid changes existing.

**Sick Pigs.**—R. A. R., South Haven, Mich. Your description of the epileptiform spasms, the tendency to move around in a circle, and other symptoms shown by your pigs points toward poisoning with brine of salted meat (corned beef, for instance) or salted fishes. If your pigs have been fed with any kind of brine, or have received abnormally large quantities of salt, the mystery will be fully explained. Not knowing in what condition your pigs may be, or even whether they are dead or alive, I cannot advise you what to do, except not to feed in the future any kind of brine or large quantities of salt to swine, no matter whether they are grown hogs or young pigs.

**Probably a Case of Infectious Cellulitis.**—C. M. D., Angelica, N. Y. What you describe appears to have been in the beginning a case of infectious cellulitis, in which the infectious principle entered through a small wound or lesion on or near the pastern-joint. Since the disease made its appearance over two months ago, and since during that time important morbid changes, including abscess formation and destruction of tissue, must have taken place, I have no means of knowing in what condition the case at present and two weeks hence may be. Therefore, and as probably also surgical operations will have to be performed, I most decidedly advise you to have the animal examined and treated by a competent veterinarian. There will be no difficulty in your state in getting one.

**Warts.**—J. P. M., Merrill, Wis., and others. The June 1st issue of FARM AND FIRESIDE contains an article in this department outlining the treatment best suited to the different kinds of common warts.

**Anasarca.**—C. B. H., Earlville, N. Y. If most of the calves of your dairy-cows are born with hydropic effusions beneath the skin (anasarca), and die sooner or later, some being unable to breathe, the cause most likely consists in feeding too much sloppy food to the cows. Sloppy food from the sugar-factories is probably the worst and most dangerous.

**Abdominal Hernia—Abscess Formation in Fore Leg—An Actinomycom.**—M. M., Clay Center, Kan. What you first describe is an abdominal hernia, probably caused by a horn-thrust by another cow. As it is in the flank (in front of the hip) it is not dangerous, will probably never become troublesome, and therefore may be left alone.—As to the abscesses which formed in the fore leg, on or near the knee, of your cow, and which have become closed or healed, nothing needs to be done now; but it is possible that they will break open again or that new abscesses will form near by. If this should happen, see to it that when opened the pus will have a free exit from every part of the abscess, then fill the whole abscess twice a day with absorbent cotton saturated with a four-per-cent solution of either carbolic acid or creolin; continue to do this until the cavity has filled to such an extent that no more cotton will stay in. After this all that is required will be to keep the sore clean. If it is possible to protect it by means of a bandage, so much the better. The swelling left behind one has to take in the bargain.

**Probably Vertigo.**—G. H. R., Sedan, Mont. What you describe appear to be attacks of vertigo. The treatment necessarily must consist in a removal of the cause or causes; therefore, as the latter in most cases remain unknown, vertigo as a rule is looked upon as incurable. Taking into consideration the history of your case, it looks probable that it is the result of an irregularity of the circulation of the blood, first brought on by some injury sustained by the animal when broken, and resulting in an arterial anemia of the brain when an attack is on. Many horses thus affected have their attacks only in the spring and early summer. Horses subject to attacks of vertigo are dangerous on the road. In some cases attacks are brought on by an ill-fitting harness, especially a collar that compresses the jugular vein and thus interferes with the circulation. A horse subject to vertigo is also more liable to have an attack if hitched up immediately after having consumed a heavy meal. It is further claimed that rapidly alternating light and shadow on the road is able to provoke an attack. If a horse subject to vertigo must be used on the road, it should be kept on a light diet, the harness should be a perfect fit, and the animal should at once be stopped and not driven any further as soon as the first premonitory symptoms make their appearance. If this latter is done the attack will seldom become severe. The symptomatic difference between an attack of vertigo and an epileptic fit consists in the absence of spasms in the former.

**Swelled in the Parotid Region.**—R. McM., Tumwater, Wash. What you describe looks at the first glance like a case of parotitis (inflammation of the parotid salivary glands); but if the fact that the swelling increases when the horse is compelled to eat from the ground, or keeps the head down, and decreases when the horse is tied in the stable, finds his food in the feed-box, and is not obliged to lower his head, is taken into consideration it appears to be more probable that the difficulty consists in an obstruction in the jugular veins, to a certain extent interfering with the flow of the blood toward the heart. In such a case the interference, of course, will be the more effective the more and the longer the horse is obliged to lower the head, and will be less effective the higher the head is raised or the longer the same is kept in a raised position. If there is such an obstruction you will probably be able, since your attention is drawn to it, first, to ascertain its presence by a close examination of the course of the vein immediately below the seat of the swelling, and secondly, by being able to produce the latter at will, even if the horse has his head raised, if you press upon the vein just below the seat of the swelling, because by doing so you will increase the efficiency of the obstruction. Besides this, if the swelling consists in an abnormal accumulation of blood in the parotid portion of the jugular vein, the same will not show any inflammatory symptoms, and will be somewhat elastic to the touch, and, moreover, be in the shape of a sausage. It is true the parotid glands may also present a somewhat elastic swelling, free from symptoms of inflammation, if the excretory (Stenonian) ducts are obstructed; but in that case the swelling will be more diffuse, will hardly be where you placed it in your drawing, will not present a cylindrical or sausage form, except, perhaps, on the median side of the upper part of the bone of the lower jaw, and will be apt to be the largest immediately after the horse has been eating, while the position of the head will hardly have any perceptible influence upon its size. If, after a careful examination, you should come to the conclusion that the swelling has its seat inside of the parotid portion of the jugular vein, you may rub in along the swelling and just below the same once a day a small quantity (of the size of a kernel of corn) of gray mercurial ointment, to be had in any drug-store. If, however, you should come to the conclusion that the obstruction is in the Stenonian duct, in which case a surgical operation may have to be performed, or that you have to deal with a case of inflammatory parotitis, I advise you to call in a veterinarian.


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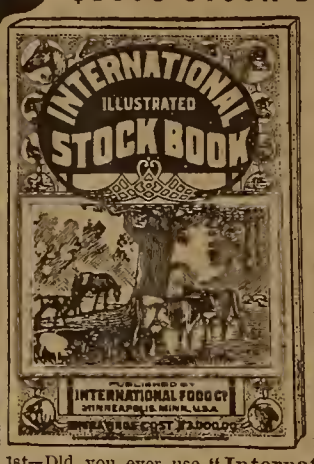


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# THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

## CURRENT COMMENT

**Grange Inquiries** Readers in Nevada, Colorado, South Carolina and other states write asking how to organize a grange. The plan has been explained a number of times, but as some of the inquirers are new subscribers it is repeated. There must be thirteen charter members, four of whom are women; better to be twenty-five or thirty. The minimum initiation fees are fifty cents for women and one dollar for men. The minimum dues are ten cents a month. Only a small per cent of the dues go to the state and national grange; the remainder is kept in the treasury of the subordinate lodge. When enough names have been secured write your state master and he will send an organizer. We will gladly furnish the name of the master of any state. For literature address the national lecturer, Hon. N. J. Bachelder, Concord, N. H. He will cheerfully send it to you free.

**What Reading is of Worth?** What a lot of precious energy and endeavor we spend in trying to make people believe we are wise! How anxiously we flaunt our superiority because of the breadth of our intelligence! We boast of the number of papers we take, and of the plans we lay to outwit time—to crowd in just a little more reading without missing any of the manual duties of life. We take on little airs of self-importance; we are grave and judicial; we have flattered ourselves into the belief that we have a just and righteous appreciation of all the provinces of knowledge; that encompassed in our brain are all the things that are worth the knowing, and we believe that our own self-estimate is implicitly accepted by the remainder of humanity. But of what use is all this endeavor? What benefit does this close adherence to paper or book render commensurate with the time and attention we give? Of what worth is it in ordering our lives? We lay down our paper and endeavor to recall the different things of which we have been reading. We are surprised and chagrined that instead of a clear, concise notion of one thing there is a jumbled, inconsistent mass of unrelated facts. We pick up the paper and glance over the subjects we have read. Here they are: "The Trained Nurse," "Cloth-covered Fields," "About Chinese Physicians," "The Wall of Pekin," "A Funny Surprise," "St. Helena." What has each to do with each or with ourselves? What logical relation do they sustain? All interesting as facts; probably most of them contain a few grains of truth. But of what actual value are they to us? In what manner do they minister unto our needs? Do they stimulate us to further inquiry of the things with which they deal? Are we better fitted to perform the functions of life devolving upon us for having read them?

Such reading may be done for recreation, possibly, yet the minds that actually need recreation would not be apt to look to plate-matter to find it. But you say, "Isn't it better to spend one's time in reading carelessly and negligently than to loaf?" What would you think of weeding your celery row carelessly and negligently? You would doubtless pay dearly for your neglect. The same is true of careless, slipshod reading. It destroys the finer sense of appreciation; it blunts the intellect. Let us examine into this a little further. Of what did we read yesterday? Think hard! Contract the brows, bite the lip, bow the head. Ah, now we have it! It was of the "Nile Valley." But what? We hesitate; we are confused. Snatches of "Wheat-growing in Russia," "Bismarck," "The Christian Martyrs," are mingled in chaotic tumult. And we ask the question of the day before, and the day before that, and the same irritating answer is yielded. And then we ask of what avail have all the hours of devotion to our reading been. A few facts we have garnered, but so disjointed and disconnected are they that they are useless to us. It is like going into a garret and finding there a lot of cast-off rubbish—all interesting, no doubt, but unavailable for our use. It is true that we have the satisfaction of knowing these things, but let us not solace ourselves that we have definite knowledge. Let us not delude ourselves with the belief that such disconnected, "unorganizable" facts, as Spencer terms them, are of value save as mental lumber.

Probably no class except some of the professionals reads as much as do farmers. They go to their reading—papers generally—for recreation and amusement. Many hours annually are consumed in just the style of reading of which we have spoken. The immense value the time so employed would be if used judiciously would amaze one. Read with a purpose. Make your own selection and read to a point. Do not be drawn from your purpose by other matters, no matter how fascinating. Read systematically. Think well of what you have read; not so much to memorize what the writer said, but to assimilate that which appeals to you. Read only so much as you can digest. Let the main part of your reading be solid, choosing writers with a chaste and pure style, and you will derive a joy and satisfaction, you will acquire a feeling of strength and self-reliance that a lifetime adherence to slipshod methods would not give. This, of course, necessitates the use of books—the best books—those on which time has set its seal of approval. We farmers have not time for the other kind; life is too short for any but the best. Fortunately they are cheap; they are within the reach of the poorest, and their worth to the human mind is beyond calculation.

**Mrs. Lizzie Crouse** Thousands of Ohio Patrons mourn the loss of their beloved chaplain, Mrs. Lizzie Crouse. Thousands of hearts are bowed in grief; thousands mourn her loss as that of a personal friend. To her death came as a blessed relief from pain. Sister Crouse had been for years a patient, uncomplaining sufferer. Her sterling character, her courage and heroism were most marked in her terrible sufferings. She was a woman of rare gifts of mind. Her presence always shed a benign influence. Her hope for what is the best in humanity, her charity for the failings of others, was abundant. She was undemonstrative; her life found expression in a sweet helpfulness. She was firm and constant in her friendship; her boundless charity and affection found room for each new-comer. I loved her as a special friend, and others shared my love and my feeling of proprietorship. We all loved her, and now that she is gone we know how beautiful, how chaste, how pure, was the object of our affections. How many of the beatitudes were her attributes—meekness, mercy, purity and a "hunger and thirst after righteousness." Surely the attendant blessings will be showered upon her. The memory of her life will be a precious heritage, a priceless legacy. We cannot see her as we meet from year to year in our annual gatherings, but her memory will linger with us. Her beneficent influence will be felt, and all narrow, selfish envy and jealousy will hide their heads from that pure radiance, and we will realize as the years speed by

"That nothing walks with aimless feet;
That not one life will be destroyed
And cast as rubbish to the void,
When God hath made the pile complete.

"Oh yet we trust that somehow good
Will be the final goal of ill,
At last far off, at last to all,
And every winter change to spring."

**Grange Reunion** Each year the Patrons of the state meet on the state fair-grounds at Columbus for a reunion. Two days are known as "Grange Days." The doors of Grange Hall are thrown open, and members and their friends from all over the state throng there to exchange greetings and renew their hope and courage. Great preparations are being made to make this year's reunion better than ever before. The untimely death of Sister Crouse will make us all sad. She will be remembered as the gracious hostess of Grange Hall. Let us meet together as she would have us, and renew our faith and put on our armor for better, more faithful work in the future. It is thus that we can best show our devotion—by laboring for the cause she loved.

**Keeping Up With the Times** One of the most pathetic things in life is to see men and women who have devoted their time and talents to some good cause ignored or thrust aside by younger, more virile persons. We can console ourselves with the thought that to these latter will inevitably come the pushing and jostling and final annihilation. Yet it is a poor consolation. Those who are giving to some beloved cause give all; their hearts are in their work, and they do not take time for purely selfish matters, but yield their all, that the beloved cause may live and grow. They do not realize until too late that they give and receive no like gift in return. It is not until the final blow comes, when they see the object of their life's love careless and neglectful, that they comprehend the mistake they made. If one gives, then must he daily receive more than he expends, or time will leave him bankrupt. One's mind must expand. It must be constantly open to new thoughts, new interests, for even with the hardest effort it will grow slow enough. The world is rapidly advancing, and we each yield our share to its growth. Let us exercise a care that we do not fail to keep pace with its development. If we do not, the end is despair.

**August Topic** "How can crops adapted to this locality be grown to the best possible advantage, and how important is good seed and the use of farm machinery?"

Supplementary topic—"How should a farmer and his family spend a vacation?"

**Topics for Discussion** Do we need a library? What plan shall we take to secure one?

The importance of the study of local history.

How is the soil of this community built up?

How should we apportion our time for reading?

How would a shorter working-day affect the farmer?

What should be the relation between the subordinate grange and the district school?

Estimate Mr. Carnegie's influence on the present. What position will history accord him?

Does the present school system fit the boys and girls for the best work in after-life?

Is it essential for our boys to study agricultural science and our girls domestic science?

What does your school cost per annum? What are the net results of the past ten years of school?

How are the township, county and state taxes raised? From what tax do we derive the most benefit? From what the least?

Which is of the most worth as a citizen, a moral man who is ignorant or an immoral one with a splendid education and a comprehensive grasp of the present business conditions?

Locate a central school at the most convenient point, irrespective of township and county lines. Estimate the cost of maintaining a school at that point for a certain number of districts (number to be gaged by local conditions). Would it not be worth while to experiment with one consolidated school?

Judging from your own observation of men who have "worked up" in their farm business, and those who have taken a course in an agricultural college, would you accept Mr. Schwab's suggestion that young boys be put to an apprenticeship or sent to school? Will his idea lead us backward or forward?

## ELECTION OF SENATORS

Inasmuch as the Ohio State Grange has decided to work to get the farmers to urge the state legislature to memorialize Congress to call a convention to propose an amendment to the United States constitution to elect United States senators by a direct vote of the people—a long, crooked, roundabout, zigzag, up-and-down road leading to nothing, probably—let me suggest to that grange and to all a simpler and quicker way, and one whereby the people can have such direct election as soon as they want it.

Amend the state constitution (which can be done in a year or two by vigorous work) to this effect, that at conventions and elections all proceedings shall be had to nominate and go through the regular legal form of electing a United States senator, and let that amendment to the constitution go on to say that "the members of the legislature are hereby requested and required and expected to elect the person so chosen by the people." Legally this does not prevent the legislature from electing any one, but it is not likely that any member would care to break over this popular demand. United States electors, in voting for president, are bound only by custom.

This method is simple and effective. Let the grange work along this practical line. I had introduced into the California legislature five or six years ago a bill to this effect, but it needs some organization to back it up and interest the people.

W. S. Prosser.

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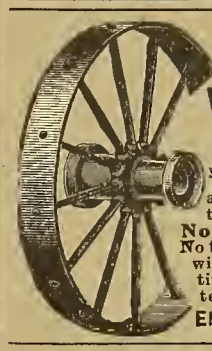
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# Profit and Loss

BY LILLA A. WHITNEY

Economy is a word not easily defined; in fact, each individual defines it practically for himself, and thinks his own definition the only correct one. The term is most commonly used to express the judicious management of money, and yet outside this restricted sense perhaps no word in the language has a wider or more diversified range of meaning.

The test of economy itself is always a true balancing of outlay and returns. If a man pays sixty cents a bushel for grain and sells it for seventy-five cents he gains fifteen cents, or one fourth of the cost. Should he sell the grain for fifty cents he loses ten cents, or one sixth of the cost. But in order to know either the gain or loss he must return always to the cost, making his estimate upon that basis, and it will be found that the method holds good in putting economy to the test everywhere.

Now, if cost could always be reckoned in dollars and cents the difficulty in making a correct estimate would be greatly modified, and a larger number of people would be inspired with courage to attempt it.

Unfortunately dollars and cents constitute but a small part of the cost—sometimes none of it—while men and women by the score go on losing out of life day by day the things alone worth living for—love, happiness, friends, peace of mind—and only at the end, when hope, too, may have deserted them, do they see dimly, but without knowing why, that life itself has been a losing game all through. They had never learned as they went along to count the cost.

In dress and household expenditure true economy calls always for the best material, the truth of which is set forth in the old saying, "The best is the cheapest." For people of moderate means the best is emphatically the cheapest. With the cost of making equal, the difference in price of good and poor material is not nearly enough to outweigh the difference in capacity for service.

Any mother of a growing family who has practically worked out the problem in both ways can vouch for the truth of this, and the same holds good should the purchase be an article of furniture or household belonging of any kind.

There are gain and loss to be considered in making choice of labor, and whether this be self-chosen or assigned by others economy is always on the side of what one can do best, in the shortest time and with the least discomfort and fatigue.

Specialists in the different trades and professions have realized this truth, if not in all its finest details, at least sufficiently to act upon it, and that is the main thing.

When natural aptitude and inclination pave the way the cost in time is comparatively small, while the gain in being able to do the work rapidly and well is found by an inverse ratio to be correspondingly great.

Mrs. Elton came into a little New England village to live, and was forthwith denounced by its female inhabitants as being both idle and extravagant. She had brought with her a "hired girl"—a domestic acquisition unlicensed by any known precedent in Stubbletown. There the women did their "own work," as had their mothers and grandmothers before them. From their point of view "help" in the household suggested, on the part of employers, either unlimited wealth or unpardonable shiftlessness. That the former enviable condition did not exist for the Eltons was plainly seen; hence, there could be no appeal from the latter.

With the hired girl in evidence it was impossible to strike a happy mean in making the universal decision. However, the cordial, friendly ways of the new-comer, and her frankness in speaking of her own manner of life to Stubbletown callers, did much toward disarming their prejudice.

"When I began housekeeping," she said to Mrs. Todd, a near neighbor, "I was ambitious to do everything myself. My entire life had been spent in school, first as student, afterward as teacher, and although I had correct theories about housekeeping, opportunities for working them out had never been afforded.

"Upon trial my results were found to be good, but I was generally too tired at night to take pleasure in the fact, and soon realized that if I persisted in doing my own housework I should accomplish nothing else. I had no 'knack,' as they say, and in the meantime things that I could do easily and well and with delight were never attempted; there was no time for them. I had known women who not only accomplished all their housework, but took excellent care of a family of children besides." At this point Mrs. Todd's self-conscious air betrayed the fact that females with equal capacity had been in her experience the rule, not the exception, and that so small a matter as the management of house and children was in her opinion not worth mentioning.

"But I couldn't do it," Mrs. Elton continued, ignoring the significant air, "and when my children came I resolved that whatever else lacked care, they should not, and I have kept my resolution. As yet they have had no other teacher than myself, while in leisure hours I earn with my pen much more than enough to pay the housemaid. So you see, Mrs. Todd," she concluded, smiling, "that what might not be economy for you, with your rapid, skilful fingers, is certainly such for me; I have counted the cost."

And even with the compliment thrown in it must be recorded of Mrs. Todd that she didn't "see."

Economy in the use of time has furnished the text to so many sermons, and is such a matter of every-day practice with thousands of overworked people, that it is high time the principle be reversed and the economy of a judicious idleness be at times considered. It must not, however, be forgotten that economy, like other good things, has its base imitations, and that many people go on using the counterfeit for the genuine article, not being able to detect the difference. True economy of time will often afford the "idleness" if one understands how to use the former and realizes the value of the latter. The woman who told her children at night to "sleep spry," so they could be up early in the morning and ready for work again, is out representative of a class that considers every moment wasted which is not spent in an eager scramble either to save or to earn money. Even though the "scramble" be compelled by necessity in the beginning, it is likely to continue when the necessity for it has ceased to exist.

The struggle to make each hour in the day do the reasonable work of two is one in which American women as a class are largely engaged, and that the aggregate result shows loss rather than gain must be conceded.

The cost involves anxiety, haste, wear and tear of nerves, with a consequent reaction of irritability, depression of spirits, loss of vitality, and this in many instances repeated day after day throughout the entire year. Should the price received for this tremendous physical and mental outlay be in money only—money either saved or earned—who shall say that it is not far too small to cover cost, and that the loss is not to be deplored?

It is economy to provide food for the mind all the year round as well as for the body. In too many homes books are the last things considered, and are never indulged in to any extent until after every other want—known and imagined—is supplied. The mental hunger in such homes may not be felt, but the necessity of food to nourish the spiritual life is none the less urgent. As appetite must be often coaxed, tempted, even created, in order that food may be taken to sustain the body, so is it necessary that books of the right sort rank foremost in the furnishing of all homes; that they lie about on tables, desks, everywhere, in seductive profusion. They will create their own atmosphere—one that is life-giving.

Their cost in paltry dollars—a few at a time—is too small to be considered in the face of the immeasurable gain in life itself—spiritual, intellectual life.

To how many has it occurred that a grand stroke of economy is achieved by the withholding of angry, sarcastic or resentful words?

"Words unexpressed may sometimes fall back dead,
But God himself can't kill them when they're said."

The cost of withholding is a momentary sacrifice of inclination, an instant's stifling of the feeling that has produced it; in short, it is the old-fashioned "ounce of prevention" that is worth the "pound of cure."

But the result as balanced with the cost, what is that? It is gain in power of self-control, thus gain in character; it is gain in influence, perhaps gain in the keeping or the making of a friend—small cost—infinite gain.

The study of economy is broad and deep. We are confronted each day by its problems, but experience, thought and patience can solve them.

Balance the cost with the result in each problem as it appears, and see whether gain or loss is revealed.

## THE RECREATION HABIT

This is the season when we hear a great deal about change and rest. "Where will you spend your summer?" slides from the tongue as easily as "Did you ever see such weather?" and with quite as much solicitation. No matter how charming a home one may have, she is expected to leave its comforts during the heated season and go some place—any place—in quest of recreation. Sometimes she finds what she seeks; oftener she does not.

The fact is, one cannot find rest or happiness from mere change of scenery or occupation. The habit of recreation—of daily self-renewing—must be acquired and practised all along the way.

If some of us ever covet riches it is that we may travel and drink deeply of the joys nature gives to those who love her. To "explore and explore and explore," with no thought of the time or money it costs. But, after all, the simple habit of throwing off care when one's work is done, and being just happy, is better than a fortune.

We know noble women whose lives are small and cramped when they were meant to be infinitely large. We know men who are so busy making a living that they have no time to enjoy living; but we know, best of all, that many a moment of our own lives that might have been for rest and growth has been filled with needless worry and anxiety.

Your girl has left; your bread has molded; your fruit has spoiled, which is bad enough, but you must needs rehearse your tale of woe to family and friends, and with each telling the trouble grows. You attended to your last chore and closed your kitchen door at seven o'clock, and you had a perfect right to enjoy yourself during that hour that you went over in detail the whole day's vexations.

You have taught school from nine in the morning to four in the afternoon, and have had a weary day of it. You have been tried almost to the limit. So you very sensibly walk home with a fellow-worker and talk school, school, nothing but school all the way. You might show a lack of proper enthusiasm and interest in your vocation should you by any chance turn your thoughts into an entirely new channel for an hour. You will probably spend your evening grading papers, so why make the mental effort to get out of the rut for so short a time.

You have been in an office or sitting at your desk all day and you are tired to the tips of your fingers. A friend drops in for the evening, and must needs tell you of her trials in office-work, and ply you with questions and give you not the ghost of a chance to recreate mind and body by getting entirely away from your work.

You are an invalid. You have never known the vigor that makes men and women face the world with undaunted courage. Every day is a struggle against physical weakness. Your sympathetic neighbor spends a whole evening reciting to you the headaches, the coughs, the measles, the neuralgias, the agonies, she has lived through, and the wreck they have left her. She is spending an hour of perfect health to re-live all the horrors of past afflictions. A very sensible thing to do.

You have had an afternoon to yourself because all the young people of your household are off on a picnic. You spend your time imagining the calamities that may befall them. The list is long, ranging from colds to runaway teams. They return hale and hearty, while you are quite worn out with fretting.

Oh, the pity of it, and the wicked wastefulness of it, and how plainly we can see it in the other person!

The Adirondacks, the Rockies, Yellowstone Park, all of the United States, with Europe thrown in for good measure, cannot recreate one who needs rest and change, but has never learned to take it when she may. If all the worries are to be carried along, save expenses and spend a year or two in acquiring the habit of enjoying the good things of life as they come.

BERTHA KNOWLTON.

## A SHAMROCK LUNCHEON

This is a very pretty summer entertainment for the one who is looking for something new and novel in the way of social gatherings. The invitations may be cut out of clover-green cardboard, or white cardboard tinted green with water-colors, in the shape of a three-leaved clover. On one leaf have the words "Shamrock Luncheon" in white or gold ink; on another leaf the date and hour, and on the third leaf your name and address. Put in square, white envelopes, and send either by messenger or through the mails.

The decorations should be in green and white. A fine effect may be produced with potted plants and baskets of clover. The luncheon-table should be laid with a white cloth and decorated here and there with some of the cardboard shamrocks. At each plate place a shamrock place-card. The color scheme in the viands should be green and white where possible.

When the guests are all gathered and first greetings are exchanged the hostess passes a basket containing cardboard clovers, on each leaf of which is written some simple, well-known line. On the first leaf have the first line, on the next leaf the second line of some other rime, and on the third leaf the third line of yet another verse. The leaves must be numbered to correspond with the line. Each one starts out to find the line that goes next after his leaf No. 1; for example, if some one has on leaf No. 1

"If all the sky were paper, and all the sea were ink,"

it is his place to hunt for the one who has

"And all the trees were bread and cheese,"

and when found, to hunt for

"What should we do for drink?"

When all the quotations are matched the guests will enjoy hunting for the four-leaved clovers, which the hostess has cleverly hidden in nooks and out-of-the-way corners.

When all the clovers are gathered they will enjoy a little brain-work. Each one is given a pencil, and a card with a shamrock in one corner, and invited to write the names of the operas and dramas represented by different objects in the room.

"Pinafore" may be represented by a pin inserted in a figure four.

"Midsummer Night's Dream," a large ice-cream freezer. (This may be drawn on a paper and pinned up.)

"Maid of Orleans," a box of taffy.

"Faust," a large marguerite.

"The Last of the Tribunes." by the last number of that paper.

"Hamlet," by a tiny wooden ham.

"Merchant of Venice," by three jeweled pins (recalling the jewel scene).

"All's Well That Ends Well," the word "well" fastened on the end of a walking-stick.

"Eight Bells," the pictures of eight young ladies fastened on a wide ribbon.

"Pirates of Penzance," a charcoal drawing of a pie, rats, pens and ants.

"The Rivals," by a gold dollar and a silver dollar on a ribbon.

"Much Ado About Nothing," the words "much ado" written in a circle around a naught.

This will finish the guessing contests, and now prizes may be given to the one who has done the best work. This may be as simple or as expensive as one wishes. A clover stick-pin is a good first prize, and the "pigs in clover" puzzle for the consolation prize.

Just after the guests leave the lunch-table pass a "Jack Horner pie," in which is anything that may suggest an occupation, a fad or a tendency. All or a part of the following will cause a great deal of mirth: A heart, a butterfly, a tiny hoe, a thimble, a coin, a bell, an arrow, a star, Oxford cap, pocket-pincushion, little metal ax, a tiny birch-bark canoe, India-rubber eraser, cake of soap, tiny Japanese umbrella, little brown jug. When the article is drawn out it will be found wrapped with some appropriate verse, which is to be the person's fortune, as:

"A washerwoman you will be,
A thorough one, I hope;
And so to aid you on your way
I give—this cake of soap."

"All through life you'll need an umbrella—
Yours will be held by a handsome fellow."

"An ax I give to you,
Your way through life to hew."

"As seas you travel over,
As waters you go through,
Heed counsel from a rover—
Paddle your own canoe."

"Who'er you are, what'er your name,
You'll win the rubber in every game."

The "fortunes" for the men are tied with one-color baby ribbon, and for the ladies with another, so they may know which one to draw. It makes no difference if the verses are crude, so they are pithy; they will produce the desired result—of sending the guests home, pronouncing you an ideal hostess.

GENEVA MARCH.

GIRLS should be veritable sunbeams not only to the members of their own family circle, but also to everybody with whom they come in contact. Every room they enter should be the brighter for their presence.—Ruskin.

## A WEDDING SONG

BY MADELINE S. BRIDGES

With your sweet hand in mine, dear,
Along life's way we'll go;
Whether the day be fine, dear,
Or stormy tempests blow.

We'll bravely fare and sing, dear,
Or slowly wend and pray;
But we'll together cling, dear,
Then let come what come may.

Though we may lack some things, dear,
Missing the road to wealth,
We shall be rich as kings, dear,
While we have hope and health.

While our strong hands are strong, dear,
And our true hearts are true,
Nothing can do us wrong, dear,
Nothing can make us rue.

Lovers have come and gone, dear,
Since the first two were wed,
And the life of the world goes on, dear,
And love is its fountain-head.

Ah, what would the poets write, dear,
And what would the minstrels sing,
If passion had vanished quite, dear,
And love from the world took wing?

Then thanks to God that we live, dear,
To follow love's old, old ways;
To bear, to bless, to forgive, dear,
To the last of our dim old days!

So we'll bravely fare and sing, dear,
Or slowly wend and pray;
But we'll together cling, dear,
Then let come what come may!

## NOTES ON BREAD-MAKING

With a majority of housewives the making of good bread is a topic of importance always, and it is one of the arts (?) truly lacking in more homes than one would believe who seldom goes from home and sees but seldom other than their own good article in dainty, light biscuits and loaves.

Upon this subject I talked once before in these columns, and it is evident that some of our readers gave to the subject especial attention, for from some of them I have had personal letters and letters requesting that I give more explicit methods of making bread. Time is time with myself, and that time so filled with typewriter-work that it is impossible to give personal replies. Then, too, so many new items that will here prove food for thought, as well as give methods of providing food for brain and muscle, have come to me since the writing of that article, under the heading of "Bread Making and Baking," that another chapter on the subject cannot possibly come amiss, so I will add to it some ways that will be new to many of utilizing bread sponge and dough in the making of most toothsome articles for the table. The writer "preaches" plain living and all manner of hygienic living, and then proceeds to give methods of making or preparing foods that are hardly permissible and that do not come at all under the heading of hygiene in edibles.

But that is the way of the world to an extent. We know what we should and should not do, and then go on eating such foods as we know are not best for us. And as the people of the world will have them, I give receipts for making.

I am always adopting the best methods obtainable of doing things, even to making bread. I have changed my plans of bread-making here a little, and will tell our readers how I best suceed.

The day preceding bake-day or bread-day a soft sponge is made of four good-sized potatoes boiled and mashed very fine. To put them through a fruit-press is the best way. This fruit-press is a heavy, block-tin affair that usually costs twenty cents on "bargain-counters" or at the hardware-store. The potato-water, which should measure at least three pints, is poured boiling hot over a scant pint cupful of flour, stirring briskly until it is all a smooth paste and uot too thick. Add to this the potatoes, and one tablespoonful each of sugar and salt. When cool beat in well one cake of dry "store" yeast that has been soaked in just enough warm water to swell and soften it. Keep warm over night. This yeast will be a perfect foam in a short space of time.

In the morning, before breakfast, the bread-sponge is "set," using two cupfuls of the soft foam to one cupful of water. The quantity to be used is, of course, according to the size of the family. Stir in flour to make a batter or sponge of the usual consistency, beat hard and well, and place to rise where it is warm. When breakfast is over the sponge will be ready to mix into a loaf. Add a little granulated sugar, salt to suit the taste of the family, and a handful of sweet lard. Mix this well through the sponge before mixing. Mold until smooth, and set aside in a warm place to rise again.

An item here worth special mention is that bread-dough placed to rise in a deep stone jar, well greased aud covered with a thick cloth, will become light quicker than when put into pans or dishes of other description. The jar gathers and retains warmth, and quick rising is one great secret of good bread-making. The sooner the process of fermentation can be accomplished from first to last, the better will be the bread.

When light mold down gently, and return to the jar for fifteen or twenty minutes to again get light. Mold into loaves, put into a covered dripping-pan or baking-dish, and be very careful that the loaves do not get too light before reaching the oven. The best prospects imaginable for good bread will all fall flat if bread is too light when put into the oven. The oven heat should be left to expand or raise the bread more than it has risen outside the oven. This process insures flaky, delicate bread, while the former way —letting bread become too light before being put into the oven—will invariably assure porous, coarse-textured, dark-colored loaves.

A gentle heat is required for best results. Bread quickly browned over is never so nice as bread baked slowly. When the loaves come from the oven turn out upon a perfectly clean cloth and rub the crust over with a small lump of butter. Preferring a crisp, hard crust, do not butter or cover; either produces a soft, tender crust.

Where baking is done every other day the amount of yeast made will soon be used. This is well, for the fresher the yeast, the better the bread. Keep the yeast in a jar covered only with a thin cloth, and in as cool a place as can be found in warm weather, and where it will not freeze in cold weather. For a very small family half the amount of yeast, and made oftener, will be best, using but half a yeast-cake.

Bread-cake.—For a large-sized dripping-pan loaf of an exceptionally fine fruit-cake or bread-cake, take from the bread-sponge when ready to mix the bread into a loaf two cupfuls of sponge. Beat two eggs, add two cupfuls of brown sugar and one cupful of butter. Cream all smoothly. Add the two cupfuls of sponge, and beat again, one generous teaspoonful each of cinnamon, allspice, nutmeg and cloves, and two teaspoonfuls of soda dissolved in just water enough to reduce it to liquid form—about two tablespoonfuls. Stir in the soda, and add sifted flour to make the batter of usual fruit-cake batter consistency. Add two cupfuls of seeded raisins and two cupfuls of Zante currants or four cupfuls of raisins, as preferred. The amount of fruit used is more a matter of taste or inclination than a rule.

Bake this cake very slowly, and bake it with one dripping-pan set into another. For years I was frequently unfortunate in the baking of this cake, because of its tendency to burn easily. After I had learned to place one pan within another, the two pans fitting well together, the trouble in this direction ceased. No more burned fruit-cakes, but cakes baked "to a turn."

If the cake browns over soon after being consigned to the oven it will be at least a partial failure. It should not brown until it has expanded to full size. Baked with a cover, in a double "dripper," is best to begin with. As the cake becomes partly done the cover can be removed. Chop and slightly flour the raisins, to keep them from settling to the bottom of the pan. Fold them gently into the cake-batter; do not stir or beat them in.

Cinnamon-rolls.—Into a part of the bread-sponge put another handful of lard before mixing. When the loaf thus prepared is very light roll it out on the bread-board, cover it with a thick layer of paste made of sugar and butter, sprinkle with cinnamon, roll into a long roll resembling roll jelly-cake, cut into thick slices, and put into a dripping-pan to get light. Bake also in a pan that is incased by another of just a size larger, for cinnamon-rolls, like bread-cake, burn easily. They are a delicate and delicious article of table fare, to be eaten with tea or coffee. Ella Houghton.

## APRONS

To be strictly economical, as well as always neat, we need a good supply of kitchen-aprons, made wide and long enough to completely cover the fronts of our dresses. All things considered, I find that indigo-blue and oil-red calico (figured) make the best work-aprons. Gingham wears better than calico, but it costs more, and one can rarely ever find a piece of gingham that does not fade, and it shrinks so much in the first washing that an apron which was ample enough when made will be found much too short after being washed to protect the dress. But the last objection may be overcome by shrinking the gingham by washing it in clear, warm water, drying, and ironing it before the aprons are cut out. If the goods to be used contains colors liable to "run," a small lump of alum should be put in the water to set them. Two widths of either calico or gingham are sufficient for a good-sized kitchen-apron. I like them best made straight and gathered full onto a waistband and with a pinafore. Tear one of the breadths down the center, and sew one half on each side of the whole breadth. An apron with two large, square pockets put on within easy reach of the hands will be found most convenient to wear when sweeping the rooms in the morning. One of the pockets should be used for the dusting-cloth, the other to put little scattered articles which one is sure to find that the children have carelessly left where last used, and which she will want to restore to their places when the sweeping is done, but which take up too much time to put up separately as picked up. The woman who has never put pockets (big ones) on her working-aprons has no idea how convenient they are as receptacles for things needed about her work —so handy to drop the iron-holder in when called away a moment, or the thick, doubled rag which should always be used for lifting skillets and pots, instead of using the apron itself for this purpose, as I have seen so many housewives do. The big pockets used this way prove a boon to those women who have a fashion of dropping their holders down just any place, with no after-recollection where they were put. These pockets are most handy, though, when taking the weekly washing from the line; the clothes can be put into the clothes-basket with one hand, and the clothes-pins dropped into the apron-pockets with the other.

Mrs. W. L. Tabor.

## WHERE OYSTER-BOATS COME IN

Sitting on an upturned boat this morning, watching the blue, dancing waves of Long Island Sound as they ran glancing into the shore, my interest alternated between the vivid beauty of the morning and the scene itself and the human aspect of a shore industry. Everything was fresh and brilliant in the keen sunlight and soft, clear air. Something of the delicious spring feeling that brightened the near gardens, where magnolia-trees were in magnificent bloom, and tulips by hundreds rioted in glowing color, mingled with the delightful tonic quality of the bracing salt air. All along the curving shore of the broad harbor peach and cherry trees in their full flowering seemed to hover like clouds of white or rosy mist near the pleasant homesteads, while the elms and maples were lightly dressed in the soft and tender hues of newly opening leaves. The little cove where I sat is bordered by a broad band of that shelly debris which is the residue and sole record of the lives of innumerable creatures of the deep, with here and there a perfect glistening shell still telling its wonderful tale of the perpetual mystery of created form. Boats of various shapes and sizes—small yachts, flat-bottomed rowboats, "cat-rigged" sail-boats, and occasionally a naphtha launch —line the beach, many of them at anchor here, others getting up sail or putting out vigorously toward the long point which defines the entrance to the harbor.

A little further along my attention was drawn to the labor of a man who was shoveling oysters with a kind of magnified spading-fork as a tool, taking them from a battered old rowboat which lay partially submerged by the tide and transferring them to a neat, trig sail-boat which was held by guy-ropes close against its side.

This portion of the Connecticut shore is well known as a fine oyster region, and this town of Norwalk is to some extent a center of the trade. Taking advantage of a little pause after his stopping to bail out some of the water as the oysters became low in the boat I ventured to draw near and ask questions about the details of the work. "My oysters are all planted oysters," he told me, and pointed out, far down the point, the beds, marked by stakes, from which they came. These beds are valuable private property, but there are also many places in which the natural deposit, varying greatly in size, is free to anybody who chooses to seek them.

The seed-oysters, as they are called, are planted in favorable situations, and after a proper interval, when they are grown to good marketable size, they are, of course, more uniform and bring better prices, and are then still further improved and (as the oystermen say) fattened by sinking in fresh, or "brackish," water for two or three days. This explained the sunken boat, as it was moored where the fresh water from the Norwalk River joined and modified the salt tide-water. "It is hard work," my oyster boatman told me, smiling and shaking his head. He held up the strong iron rake, perhaps three feet wide and with a cradle-like curve to hold the oysters, with which they are drawn from their sandy bed. "We can only get them for about five hours out of the twenty-four," he said, "at low or half-low tide. When the tide comes in we have to stop work."

I asked about the season—if it was not almost too late to eat oysters. "The law is on the first of July," I was told. "Oysters are as good as ever in June, when you're sure they are just out of water. The law protects the spawning season, and they're not as good then. Some will spawn a little earlier, but they're never better than they are now." And so I thought when delicious roast oysters came on the table that night "on the half-shell." D. H. R. Goodale.

## HINTS

Never add flour to a liquid. Add the liquid to the flour.

French peas look prettiest, but do not excel others in flavor.

Pieces of apple, if rubbed with lemon, will not discolor in standing.

Do not put eggs or flavoring into a hot mixture. Allow it to cool a little first.

To test a baking pudding run a knife into it. If it comes out dry the pudding is done.

The zephyrette, or reception wafer, is used with soups, salads and the chafing-dish.

Cookies made from a drop-batter are more delicate than those made from a stiff dough.

If you substitute butter for vegetable-oil, use one half more butter and a little less salt.

White pepper is the kernel of the pepper-corn, and black pepper is made from its husk.

A large amount of dough put at one time into the oven or the frying-bath lowers the temperature.

Flour and butter in equal amounts is the rule for a dressing. Blend and cook well to avoid a raw taste.

A dressing containing milk should not be used for a dish in which there is apple or any acid, as it may curdle.

Rolled crumbs of bread or shredded-wheat biscuit are preferred by many to cracker-crumbs, as they are less greasy.

French people know the delicious blending of flavors. They would almost as soon be without bread as without carrot for flavoring. Harriet A. Lusk.

## FOR THE COOK

The expert cook is the most economical one.

Do not discard parts of eggs. Whites will keep if covered. To yolks add a little water. Milk will soften beaten eggs which have become hard.

Save small pieces of bread for croutons to serve with milk, potato or peanut soup. Keep dry bits in a paper sack for crumbs. Roll the loaves in wrapping-paper to keep them moist.

To save gas in the kitchen range turn it off when not in use, if only for two minutes. Matches are cheaper than gas. Keep the blaze even for a boiling mixture. A large-sized blaze will not hasten it.

Three requisites of a good cook are cleanliness, accuracy and economy. A clean apron, clean hands and clean finger-nails are as invaluable as clean dishes. Cooking-utensils should be as well cared for as delicate china. Do not touch a cloth to the tea-pot or coffee-pot. Use the hand and clean water for the washing, turn it up to dry, and rinse before using again. Empty and invert the tea-kettle each night.

The level measure is the rule. Measure flour after the first sifting, and butter, lard and cheese packed solid. Level with a knife, not a spoon. Use the glass measuring-cup, which is not harmed by acids, and the triple-spoon, which measures one fourth, one half and one whole teaspoonful. A salt-spoonful is one fourth of a teaspoonful; four teaspoonfuls (liquid) make one tablespoonful; eight tablespoonfuls one half cupful, and two cupfuls one pint. Thirty drops make one half teaspoonful. H. A. L.

# Rain and Shine in New York

BY FRANCES BENNETT CALLAWAY

ON ONE of our bright days we were taken by a friend to an art reception at the Metropolitan Museum, and this particularly pleased our artist, Hermione, who finds the delight in pictures that other people do in music. After the reception came a pleasant stroll through Central Park, where a sight of the brilliant blue sky, softened here and there with a floating white cloud, and broad stretches of velvety, green grass were particularly refreshing to the country girls. The wistaria-arbor hung with purple blooms on every side, and overhead was something to dream of, as were also the beds of yellow pansies done in scallops, with knots of daisies between.

Then Mary Ellen needed a hat; and what fun it was going with her through lanes and forests of hats where ribbons were thick as leaves, and roses, oh, gardens of them, with little cages of singing birds mixed in! She refused the heavy half-bushel basket head-covering which the milliner insisted upon as so becoming, and resisted the bargains in pink silk and mousseline-de-soie, and after much patient searching found a modest straw sailor with a twist of silk and two straight quills, which is just as modest and serviceable as can be. The girls will be interested to know that hat-pins this year are dainty little bunches of fruit or flowers, as a cluster of currants with a green leaf, or a tiny wild rose.

We saw acres of shirt-waists, and were told that the high, choking collars supporting the ears are to be given up. One reason is that the most malignant forms of cancer result from binding the throat too tightly and hindering the circulation. The newer and more sensible style is a pretty turn-down collar, draped with soft lace if desired. A very pretty style is that of a loose blouse laced with velvet ribbon over a white under-vest, also loose and full.

When tired with shopping we came to a great fountain in the midst of one of the department stores, splashing and rippling into a basin as large as a room. Here are set convenient little tables and chairs, where one could rest and eat cream while being entertained with music and the Vanity Fair sweeping by. The crowds of overdressed women soon made us wish to be as plain as chippy-birds the rest of our lives, for we could not help seeing how tasteful and really stylish a plain dress looked beside those flashy gowns covered with lace, tags, spikes and furbelows. We also observed that the less brains in a woman's head, the more cloth she carried in her skirts, to trail over dusty floors and sweep up filth and microbes.

After this glimpse of fashionable life we were privileged the same day to visit with a friend, Mrs. Bella Cooke, so distinguished for her charities and Dorcas-like deeds. Admitted through a narrow street door, we were conducted through an alleyway into a little courtyard, where blossoming plants were wired up carefully, as if some one loved them. Crossing this court, we came to an unpretentious brick house, built many years ago in the midst of a pleasant yard and garden, but now walled in on every side by towering brick structures. Without knocking our friend opened the door and took us quietly up to Mrs. Cooke's apartments, where we found this dear lady in presence as sweet and genial as a summer garden. She was dressed in the daintiest of frilled caps and gowns, for Mrs. Cooke is eighty years of age, and for the last forty-six years has not been able to leave her bed. Although she cannot possibly sit up, she is propped a little way with pillows, and being able to use her hands she can write and sew beautifully.

"Bring out some of my mischievous work," she called, with a laugh in her eyes, to her maid. We were amazed at the beauty of the silk quilt which the maid brought out, and examined with interest all the housewives and needle-books fashioned of rich pieces of silk with exquisite stitches. Mrs. Cooke gives to the church this year two hundred dollars over and above her pledge, and earns the money with this fine needlework. Besides, rich people give her much to distribute to the poor; and while this latter-day Dorcas is not able to make garments for them, she makes those who come to her for aid sit down and repair the garments given to them—mending them, sewing on buttons or doing whatever is needed. Children, grandchildren and great-grandchildren claim Mrs. Cooke's loving thought. The circle of King's Daughters of which she is president meets with her once a month, besides many callers, so that few women lead a busier or more useful life.

"I have done what I could," was all the sermon she preached to us; but we went away feeling that the spirit of this brave, bright woman triumphing over years of pain and invalidism was in itself a "winged victory," and her little bed, with its pink muslin draperies and cheerful mottos all about, a shrine to be remembered.

One Sunday we went to a church near the Bowery on the East Side, a district banked up with foreigners and Israelites. The pavements we found swarming with hordes of children who, probably many of them, have never seen green grass or known an apple-tree. Yet these little children love beauty—that is one thing, says Jacob Riis, you cannot take from them. The pastor of this church is the only resident minister for one hundred and fifty thousand people—a man known here in New York as another Thomas a Kempis for his saintliness. He has faced death in various ways, and turned aside a murderous dagger by simply smiling at the assassin. The following is an instance of the rescue-work being done by this church in quiet ways.

A week or two ago a girl left without friends, without money and without work was forced to walk the streets night and day because she had no shelter. Then a rainstorm came on, when it was impossible to walk all night in the rain; but the lodging-places provided by charity, crowded often with the low and vile, were worse even than the storm to this poor girl, who was good in heart and clean in mind. Her pitiful case being made known to this good pastor, he placed the girl under the care of a motherly woman, with money to pay her board for one week—until she could build up physically—also money to provide her with whatever clothing she might need. When the girl was fed and clothed, and made to feel that good and kind friends did care for her, a position was found, and she is now able to take care of herself.

Much is said of the wickedness of this great city, and it is no doubt true; but if one were to follow up the steps of a saint, like this Thomas a Kempis, one would find even in the darkest and most wicked spots the love of God and humanity is beating warm in many hearts, and many a life is touched with the glory of that clear dawn of the kingdom of heaven, which even now is here.

Hermione had dragged us about to art-galleries, libraries, museums, recreation-piers and all manner of show-places until we were ready to faint away, while she would never admit that she was one dot tired; consequently, Mary Ellen and I were secretly delighted when Hermione herself confessed one morning that she could not go any more for the cramp in her legs, and that she was ready to start for home.

In closing these rain and sunshine impressions let me give you just a glimpse of one delightful evening in that hospitable settlement-house, the Christodora. We were invited to spend an evening there with the Loyalty Club when the subject under discussion was "The Dog and Cat in Literature." Dog and cat pictures were conspicuous among the choice and refined pictures in the club-room, and this room filled with a company of bright, vivacious girls was indeed a charming picture in itself. As for the ladies of the settlement, they were beautiful in face, voice and manner, and any young girl might have considered it a privilege to spend an evening with them. I wish I could tell you all the jolly dog and cat stories we heard in the course of the evening. The funniest one was in regard to a cat's love for soft cushions, this particular cat being found one morning on top of the warm, soft dough intended for bread.

After the songs and laughter and stories a bright-haired girl, as modest and sweet as a rose, showed us all the Christodora banners, as well as college pennants, which had been presented to them. Then, with the delicate color deepening in her face, she told of the good and lovely work this Christodora settlement is doing for poor working-girls. A physician is furnished them for the nominal price of twenty-five cents, and tired girls needing rest and building up are sent away for six weeks in the summer, all of their expenses being paid. One could see from the way this particular girl spoke that the vacation trip given her one never-to-be-forgotten summer was like a foretaste of heaven.

## A DOLL'S HOUSE

My small daughter has a new doll-house. A large wooden box is painted light green, trimmed with white, and is divided by partitions into four rooms. Much patience and ingenuity were displayed in making the windows; mica was fitted in to give a realistic air. The walls of the parlor are covered with green and gilt paper; it adds wonderfully to the effect. The green and gold velvet carpet once appeared on a winter hat. Some pieces of Brussels net made stylish curtains.

Here, of course, Margery placed the porcelain (Dresden pattern) table and two chairs, birthday presents, etc. Of her old toys, a wooden table and rocking-chair looked very well. A small plush ottoman, which is delightfully restful to weary feet, was originally a medicine-powder box.

Madam Elizabeth (the doll) has a new upright piano, mahogany finish, with brass legs, costing two dollars. The little lady looked with wondering eyes at another style with handsome carving and boasting sharps and flats, price twelve dollars, but that was not for us. Cousin Nell has a crank music-box in hers which plays two tunes, the cost being one dollar and twenty-five cents.

Pictures of Emperor William, President McKinley, an Oriental beauty, and a kitten playing on a typewriter, decorate the walls. A fairy lamp burning tapers is attractive. A wee novelty is a cat playing a harp.

The walls of our bedroom are painted a light blue. A piece of blue linen, a remnant of a bureau-spread, forms a dainty carpet. We have ruffled blue muslin curtains. A cigar-box is the plebeian foundation for the bed, but the result is an artistic creation. As mother's work-basket contained no curled hair, cotton batting did excellent service in the mattress and pillows. The spread was a bit of blue and white cretonne. The other furniture was bought. Margery's busy fingers have crocheted a hammock, which is a great comfort to the restless baby. Margery had faithfully saved her pennies until she was able to buy a complete toilet-set—white and gold. Surely with this and the little bath-tub Miss Dolly will be neat. My contribution was a toy sewing-machine, which the small maid is learning to use.

In the dining-room is a bright, cozy red paper. Alas! we have nothing to put in it but a china tea-set. Down at Freeman's store there is a miniature dining-table and chairs copied after correct grown-up designs. But we will need to save many pennies in order to buy them—eighty. Madam Elizabeth will be obliged to eat in the kitchen, as other poor people do, until "her ship comes in."

This kitchen is a credit to the household. It is painted a cheerful yellow, and contains a clever range, including a complete, practical outfit of granite-ware, spiders, stew-pans, tea-kettle, the universal nest of basins, etc. There is a refrigerator, a very complete washing-set, and the ironing-set is also perfect in all its appartments. There is a useful toy mop and a carpet-sweeper.

A simple doll-house, capable of affording much happiness, has the furniture draped in cottage style, utilizing small boxes for the foundation.

A home for paper dolls combines many fascinating "make-believes." Pretty tissue-paper is effectively employed for curtains, table-covers, dressing-table draperies, etc. Margery and Ralph planned a most unique carpet, weaved in kindergarten method in two shades of blue paper.

A wonderful treasure is seen in the toy shop—a doll-house three stories high, containing four rooms and attic. There are real glass windows and doors and a sliding front. Price thirty dollars. When Papa Jack sells his wheat-farm out in Dakota Margery expects to have it for a "town house," while the old favorite will be used as a summer home for Madam Elizabeth and Annabel.

ADELE K. JOHNSON.

## ATTAR OF ROSES

Fill a glass candy-jar with rose-petals which have been carefully separated from their cups; add enough spring-water to just cover them, and close the jar with the glass stopper. Let the jar stand in the sunshine during the day, but take it into the house at night. At the end of a week remove the little particles of oil found floating on the surface by touching with a small piece of absorbent cotton (such as surgeons use) tied to a fine bone crochet-needle; then press the oil out into a phial, which should be kept tightly corked, because this oil or scum is the true attar of roses, which requires so many roses to produce an ounce that it always commands a very high price.

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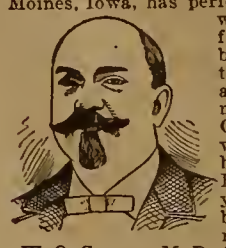

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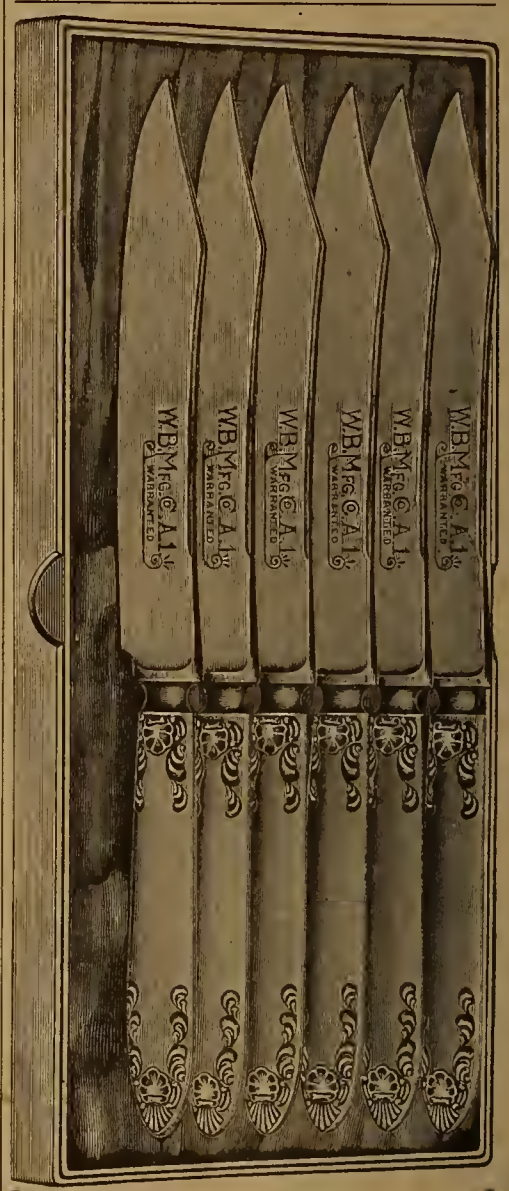


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Though hands and face be hard and brown,
That were a trivial thing;
Who wears his duty like a crown—
Is every inch a king.

No honest labor can disgrace
The man whose heart is true;
He scorns himself and not his place
Who can consent to do
In any mean, half-hearted way
The smallest service given.
The common tasks of every day
Are all ordained of heaven.

Is thy task lowly? Lift it up!
Let it be wisely willed.
Who cares how poor and plain the cup
So it be richly filled?
Be it thy task to till the soil,
Or do the drudge's part,
Fill thy poor cup of common toil
With nobleness of heart.
—Rev. Robert Whitaker, in Christian World.

### THE WORLD BEAUTIFUL

"Truth forever on the scaffold. Wrong forever on the throne.
Yet that scaffold sways the future, and behind the dim unknown
Standeth God within the shadow, keeping watch above his own.

* * * * * * *

Then to side with truth is noble, when we share her wretched crust,
Ere her cause bring fame and profit, and 'tis prosperous to be just.

* * * * * * *

Count we o'er earth's chosen heroes—they were souls who stood alone,
While the men they agonized for hurled the contumelious stone,
Stood serene, and down the future saw the golden beam incline
To the side of perfect justice, mastered by their faith divine,
By one man's plain truth to manhood, and to God's supreme design."

It is a curious fact that the popular side of a question is seldom the side that is ideally right, and the unpopular and the almost universally denounced side is not unfrequently that which stands the test of the eternal law of righteousness. Through the history of nineteen hundred years runs a series of illustrations of this statement. As a rule the world stones its prophets, and every higher round of human experience is initiated by sacrifice. Jesus, the Christ, the divinest nature that the earth has ever known, was crucified between two thieves, that the deepest shame and ignominy might be added to the agony of torture. As we glance over the panorama of history examples are seen to be numerous, and it is a fact that, almost without exception, no great movement, no valuable invention, no phase of intellectual or social or spiritual advance has appeared in the entire history of the world that has not had to make its way against ridicule or opposition or disbelief or denial. Dante was exiled from Florence; Galileo was imprisoned for declaring that the earth revolved on its axis, and narrowly escaped a violent death; Columbus was thrust into prison; Luther struggled against the most adverse defeat and denial; the invention of the printing-press encountered a storm of opposition, in that it deprived the scribes of their occupation of copying by hand, and then, as was alleged, it menaced the well-being of the people that the manuscripts hitherto jealously guarded should be made accessible. It was considered a most dangerous liberty. Though Italy exiled Dante, and burned Savonarola and Bruno, and imprisoned Galileo, and thrust Columbus into irons, almost any other country shows a history that equals or exceeds this record. Nor is there need to go back to the tortures of the Christian Fathers, to the reign of the Inquisition, to numerous facts of history within the knowledge of all. America has not been altogether behind the record of other nations in this respect. Boston dragged Garrison through the streets with a rope around his neck, and mobbed Wendell Phillips, and John Brown was hanged, and there are those who believe the assassination of Lincoln to be, in some degree, the fruit of a base and disloyal popular sentiment acting on the assassin's half-crazed brain. Even in the peaceful ways of civil life every effort to advance is attended with obstacles and difficulties. In the light of the twentieth century we smile at the absurd objections that prevailed against the higher education for women. The public schools in every city are a cause of perpetual warfare between the element that works for their more ideal quality and enlightened conduct and the element that would "run" them in the interest of party politics. Art meets the same obstacles. Rodin, that greatest genius since Michael Angelo, ran the gauntlet of twenty-five years' ridicule and censure before his incomparable greatness was recognized.

Plato records a similar state of affairs in his time and city. "There is but a very small remnant," he observes, "of honest followers of wisdom, and they who are of these few, and who have tasted how sweet and blessed a possession is wisdom, and who can fully see, moreover, the madness of the multitude, what are they to do? They may be compared to a man who has fallen among wild beasts; he will not be one of them, but he is too unaided to make headway against them; and before he can do any good to society or his friends he will be overwhelmed and perish uselessly. When he considers this he will resolve to keep still and to mind his own business, as it were, standing aside under a wall in a storm of dust and hurricane of driving wind, and he will endure to behold the rest filled with iniquity if only he himself may live his life clear of injustice and impiety, and depart when his time comes, in mild and gracious moved with fair hope." Plato seems to be convinced that a premium is placed on inanity and expediency, and his view may not be limited strictly to Athens nor the chronological period of which he writes.

The quest of the Holy Grail leads over a stony path, by which those who keep fidelity to their aim pass with bleeding feet. But—"finis coronat opus!" Always, always shall the end crown the work for those who keep faith with their high trust. "To me," once said Mrs. Julia Ward Howe in an address before the Concord School of Philosophy, "the worship of wealth means in the present the crowning of low merit with undeserved honor; the setting of successful villainy above unsuccessful virtue. It means absolute neglect and isolation for the few who follow a high heart's love through want and pain, through evil and good report. It means the bringing of all human resources, material and intellectual, to one dead level of brilliant exhibition, a second 'Field of the Cloth of Gold.'" Mrs. Howe made a personal application of this to the attitude of society to Margaret Fuller. "It was reluctant to show her the courtesy due to a gentlewoman. What was her offense against society?" questions Mrs. Howe; and she replies, "A humanity too large and absorbing, a mind too brave and independent to be commonplace."

Yet, as Mrs. Howe adds, the things Margaret Fuller asked for are granted to-day by every thinking mind. Sometimes right always succeeds wrong. Garrison, dragged through the Boston streets with a rope, is now honored with a statue of himself placed in the most fashionable avenue. A movement is inaugurated to place a memorial of Margaret Fuller on Fire Island, where she met her tragic death. Thus justice overtakes the victim of injustice at last, but seldom in time to enable him to do his best work, to make his fullest and noblest expression, and to at once give his best service and enjoy the peace, the recognition and the happiness that should have been his during his life here. Must this always go on? With

"Right forever on the scaffold,
Wrong forever on the throne."

For society defrauds itself by this process, and deprives itself of some of its most valuable leaders and inspirers.—Lilian Whiting, in Boston Budget.

### WHO ARE SANE?

It was only a story; the story of a silly wife who would not be consoled because her husband—a brave, true man—was left a captain, while the husband of her social rival was promoted over his head to be a major. And she never realized that manhood without an extra star is worth far more than the extra star without manhood, until her husband was brought to her desperately wounded while fighting at his post, and the major had fled from danger like a coward.

The woman was insane about titles and trappings. There is a soft spot in the brain of the average human being when it comes to discriminating between human brass that glitters like gold and human gold that is hidden in quartz.

It is hard to breathe the commercial atmosphere of our age and not pity the man that has failed to make money, no matter how sweet and true and strong he has kept his spirit. It requires an unusual degree of sanity not to approve the portly man who can eat Delmonico dinners every day, and underrate the manliness of the frontier missionary, for whose relief we help to pack boxes and barrels. Yet in our saner moods we know well that the sumptuous diner may be made of the commonest clay, while "Sky Pilot" of the frontier has the fineness of Carrara marble. The danger is that we shall not keep sane long enough to escape bowing with the rest of the world to success crowned with a dollar-mark.

It is sometimes very hard for the one sane attendant of a score or more of insane patients to ward off the influence of the morbid atmosphere in which he lives from morning to night. We who are young and impressible need to brace ourselves against a morbid atmosphere in the business, social and political world. This world is far from being sane on the matter of success, though it is becoming more and more so.

The minority, who are trying to carry the golden rule into business, are the sane ones. The man that looks into his pocketbook to see how he is succeeding is insane. The man that looks into his heart is sane. The insane people make inventories of goods that perish; the sane of character that is eternal. The insane take account of stock; the sane of conscience. The insane count the number of stories in the buildings they own; the sane are prouder of ten-story ideals than of sky-scraping piles of brick. The insane count success by the size of the annual dividends; the sane by the victories won over meanness and cowardice and selfishness.

When our friends ask, How are you getting on in the world? if we are sane we shall not expect our ledgers alone to answer, but the books of the recording angel.—Christian Endeavor World.

### EXAGGERATED ILLS

"I may not have achieved anything great in my life," said a woman the other day, "but I have brought up two daughters who never talk about their pains and aches."

"Maybe they haven't any," ventured a woman who enjoys poor health.

"Oh, I fancy they have their share," resumed the first woman, placidly. "One has enormous dentist's bills, and they are documentary evidence of a certain amount of suffering, don't you think? The other is anything but robust constitutionally, but she is seldom ill because she takes care of her health instead of talking about it. I don't think I have been an unsympathetic mother, and I fear I am not made of Spartan material; but when my girls got old enough to talk about headaches and toothaches and ailments—real, exaggerated or imaginary—I made up my mind to discourage it at once. I refused to listen to accounts of mysterious aches and sensations when I had reason to believe they were the outcome of too much introspection and too little exercise. Fresh air and occupation were the prescriptions for headaches and bad temper; and a bread-and-milk supper and early to bed was the treatment for other ailments. Real illness seldom comes unheralded, and when the eyes keep bright, pulses regular and appetites good there is scarcely anything that cannot be cured by witch-hazel or a good sleep. We are a busy family, and there is seldom an hour of dreaming for the girls. They had plenty of pleasure, but it was active and jolly rather than leisurely. They never got into the summer piazza complaining habit, because they were always playing tennis or sailing boats or reading books. I suppose their education has been sadly neglected so far as fancy work is concerned, but the hours that most women spend over fancy work are, in my idea, like those hours after dinner which Thackeray says women always spend in discussing their diseases."—Commercial Advertiser.

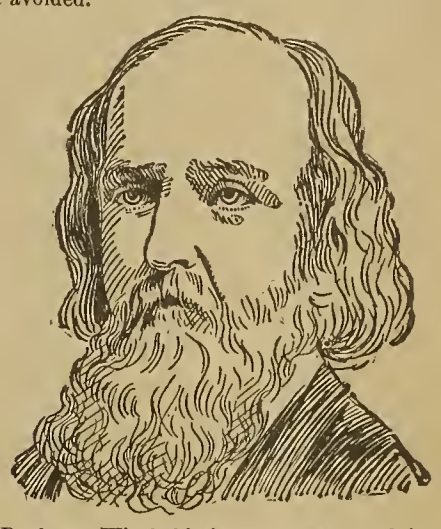
Flower in the crannied wall,
I pluck you out of the crannies;
Hold you here, root and all, in my hand,
Little flower—but if I could understand
What you are, root and all, and all in all,
I should know what God and man is.
—Tennyson.


## FOR WELL PEOPLE

### An Easy Way to Keep Well

It is easy to keep well if we would only observe each day a few of the simple rules of health.

The all-important thing is to keep the stomach right, and to do this it is not necessary to diet or to follow a set rule or bill of fare. Such pampering simply makes a capricious appetite and a feeling that certain favorite articles of food must be avoided.



Professor Wiechold gives pretty good advice on this subject. He says: "I am 68 years old and have never had a serious illness, and at the same time my life has been largely an indoor one; but I early discovered that the way to keep healthy was to keep a healthy stomach, not by eating bran crackers or dieting of any sort; on the contrary, I always eat what my appetite craves, but for the past eight years I have made it a daily practice to take one or two of Stuart's Dyspepsia Tablets after each meal, and I attribute my robust health for a man of my age to the regular daily use of Stuart's Tablets.

"My physician first advised me to use them because, he said, they were perfectly harmless and were not a secret patent medicine, but contained only the natural digestives, peptones and diastase, and after using them a few weeks I have never ceased to thank him for his advice.

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# Because of Two Wrongs

BY ALBERT E. LAWRENCE

CHAPTER III.

WITH a strange mingling of emotions Gift had hurried over the road on that first morning after leaving home. His heart was almost breaking, but his will was as determined as ever. He softened with thoughts of his mother and of the pain this would give her, and hesitated a moment when he reached the top of the hill, then turned to take a last look at his home. The little white house appeared misty in the dim moonlight; back of it a dark blot showed the position of the barn. Was it strange that as the boy looked upon this picture the house, warm and cozy, seemed to stand for his mother, and the barn, cold and rough, represented his father? That morning in the first he had been embraced; at night in the second he had been struck!

In the single moment while he stood there he saw and thought this; then he turned and went down the hill, believing that he should never look upon that place again.

Gift, with other boys, had entertained many foolish thoughts and said many foolish things. It had been a favorite theme with them to tell what they would do under certain circumstances. Gift had declared that if he should ever run away from home it would be to go straight to the Great Lakes and become a sailor. With this in view he now bent his steps in the direction of Detroit.

It was daylight before he halted to rest and eat something from his lunch. The roads crossed at this point, and while he sat there a peddler's wagon came down the road from the north. Some mishap to the harness obliged the peddler to make a stop. While he was repairing the break Gift came out and watched him.

"Going my way, sonny?" the man asked, when he had finished. "If you are, jump on and I'll give you a ride."

Gift was very tired, and before he thought that this would take him off his course he had climbed into the seat. The peddler was a great talker, and Gift soon learned that he was on his way to Chicago.

"You don't want to hire a boy, do you?" Gift asked. He reflected that Chicago would be a better place to ship from than Detroit.

"Haven't much use for one," the man declared. "You want a job?"

"Yes, sir," Gift replied.

"Ever take care o' horses?"

"Yes, sir; I've helped to care for five."

"Take hold and drive; let's see you handle the ribbons."

The team possessed considerable spirit, but the boy handled them very creditably.

"Want to go to Chicago?" the peddler asked, after Gift had driven a couple of miles.

"Yes, sir."

"I thought so; everybody wants to go. The Fair's a big thing. B'en to it twice myself, and want to go again. Well, I'll make you a proposition. I'll find you while we're on the way—yes, as long as we hold together—and take you one day to see the fair after we get there. For your part you are to do whatever I set you at. The care o' those horses will be the most of it; and I'll tell you right now, you can't give them too much care. They're my whole family, as you might say—father and mother, brother and sister, wife, son and daughter."

The peddler's name was McAllen, as Gift soon learned, and he was a great story-teller. He gave his companion some of his choicest bits, and more than once the boy laughed out uproariously. Gift was glad to lose himself in each new tale, for in the intervals he was conscious of an oppression, a tightness in the chest, and a cloud would settle on his brow. But some of the things he heard he thought were not very nice; they made him blush.

Just before noon they drove into a town that was something more than a country village. At the crossing of the principal street McAllen unharnessed his horses, leaving his cart by the side of the road and stabling his team in a neighboring barn. He took Gift to the hotel for dinner. Later they returned to the cart, and Gift learned something of his friend's manner of doing business.

McAllen brought out a violin, and with some skill began to play. After a time he struck into a song, which he rendered to the satisfaction of the gathered crowd. Another and another song followed, and then, having called people enough together, he began to display his wares, which consisted for the most part of notions and cheap jewelry. He talked with a glib tongue, selling his goods in what he called combinations. He dwelt for a moment on the merits of each article as he picked it up, finishing with a "guarantee" that it could not be purchased in that town for less than one dollar. After having gathered ten different articles he held them aloft.

"And what do I propose to do now?" he cried. "Sell these for ten dollars? No! Nine dollars? Eight dollars? Seven dollars? Six dollars? No! Five dollars? Four dollars? Three dollars? Two dollars? No! Who is the lucky man that takes this lot for one dollar? Right here he is!" The goods were sold, and in an incredibly short time another combination had been made up. "Ten dollars' worth of goods for one dollar!" he cried. "Sold to this man! Here you have another, and it is sold to the man right here! Ten articles for the price of one! Another man made happy! Still they come! Will the goods hold out? Ah, lucky man! Only a few more such combinations will be sold to-day; we must pass to somethin' else. Now's your chance! Only a few left! Happy man! Just in time! This is the last! Who takes it? Ah, this man! Did I say it was the last? My mistake and your treat. One more left to make some lucky man smile! Now, don't all speak to once, but let some one be quick about it or you'll lose the chance of a lifetime! Sold to the man way out there! What, you want it right down here? All right, sir! My friend out there loses the sale; he only winked. It's necessary to crowd right up, gentlemen, and speak right out in meetin'! Now, the next thing will be somethin' different!"

Thus Gift and his new friend moved across the state, making stops at the little towns from day to day.

The first of the following week they reached Chicago. They entered at the south side, and as the hostelry at which McAllen always stayed was on the north side they crossed the entire city. Never before had Gift been to a town larger than a country village. The peddler saw the boy's amazement, and amused himself by leading Gift to talk.

"Why, the ground it's built on is bigger'n our farm an' Ranier's put together! Oh, I guess it is! Why, it's bigger'n the whole of Washtenaw County, an' all built up to stores, too! My, ain't they tall! Oh, but it would be fine to boost a kite from one; you wouldn't have to run at all!"

The next day they visited the Fair. What Gift saw that day would fill a volume—yes, would make a whole library, but not as he told it at night.

"Well, what did you see?" McAllen asked, after the day was over.

"Oh, everything," Gift replied, wearily.

"Going my way, sonny?"

"And what do you think?" the other pursued.

"I think I ache all over," the boy sighed.

"Well, we'll go again to-morrow," the peddler said, as he stretched himself upon his cot.

The next day was Chicago Day at the Fair. Never before in the world's history had such a crowd been gathered. Gift and McAllen found themselves pushed and jostled about in its vast concourse like two particular kernels of wheat in a great bin. They were delayed a long time at the main entrance. Helpless in the immense throng, a shoulder was pushed between them, and like a wedge separated Gift from the peddler. Each moment they were forced further and further apart. Now Gift saw McAllen's face only when for an instant he could stand on his tiptoes; now he saw only his friend's hat, and in another moment even that was hid from his sight.

Presently, as Gift searched for the peddler, his eyes lighted on some men preparing to photograph the scene from a window in the second story of the building near him. He was interested in their movements, and forgot McAllen in watching them. When they had done he turned to find the peddler. In his pre-occupation he had ceased to push himself forward, and now found that others had crowded ahead of him until he had been forced to the very outskirts of the throng. He stood a moment bewildered. What was he to do? He could not think clearly, for street-cars and trucks were going and coming and there was great confusion. What if he should not find McAllen? He had not a penny in his pocket! Gift felt the tears just back of his eyes. Some men were shouting now, and a car was coming swiftly toward him. He sprang from its path and crouched beside a heavily loaded truck, which swayed and sent an empty keg toppling from the mountain heights above. Gift never knew what struck him. There was a groan from those who saw; three men sprang to his assistance.

"Is he killed? Here, carry him in this way!"

A policeman ran for an ambulance.

That night Gift lay unconscious, tucked in a little white cot in one of the wards of the city hospital. From time to time he tossed about, throwing his arms and talking incoherently and wildly. A high fever possessed him.

"The wound in itself is bad enough," said the attending physician to the nurse, "but it would not cause this high fever; there must have been something else—some great mental excitement preceding it. A fractured skull is serious in itself, but to add to it brain-fever makes the case practically hopeless. You say the lad seems to have no friends?"

"No inquiries have come regarding him," replied the nurse.

The physician stood looking down at the suffering form for a moment; then he murmured something about one mystery more or less and passed on to his next patient.

But the lad did not die, though there were weeks in which no hope of his recovery was entertained. At last, however, the fever left him, weak and helpless as a little baby. There were more days in which he lay on his cot, never speaking a word, his eyes following the movements of those about the room. As he improved the nurse questioned him, but no reply could she ever win from his lips. His eyes were bright and his countenance full of expression, but no words came from him.

The doctor had a theory. "He has it all to learn over again," he told the nurse one day; "it will come to him rapidly by and by. Suggestions now and then will bring back a flood of knowledge."

They had to give their patient a name, and they called him "Twenty," because his cot bore that number.

"You can put Twenty into a chair and wheel him into the convalescents' ward to-morrow," said the physician one afternoon.

There the boy met others of his age, and listened to their conversation.

"Twenty is getting acquainted with the boys," the nurse reported. And on another day, "Twenty has spoken; I heard him talking to Willie Fink, the boy with a broken leg." Then again, "Twenty has talked considerable to me to-day. I can see the past is all a blank to him; he can't even recall his own name. The boys call him 'Tweny.'"

In the days which followed Twenty became very fond of Willie Fink, who was the son of a German carpenter living on the west side, and when Willie recovered and was dismissed from the hospital Twenty was very sad. Twenty could now get about, and had they known where to send the boy he would have been dismissed, also. One Saturday Willie Fink came to visit his friend, and when the German boy left Twenty stole away with him. The Finks were poor, and there was a large family of them; but they took Twenty in because he wished to come, and there seemed no other place.

Willie was a newsboy, and sold papers on the streets. Twenty accompanied him about the great city. He took a few of his friend's papers and helped him to dispose of them. Life was full of perplexities, but aided by Willie's experience many a rough place was made smooth; this was particularly true in his dealings with other newsboys with whom he came in contact.

Twenty was quite happy in his new life. There was freedom from restraint; there was daily excitement in the streets; there was noise and bustle—everything that a boy likes; and at night there was the pleasure of the young Finks' society. But at times moments of dreamy sadness came to him; often they were the last impressions of the evening and the first in the morning. He felt there was a past, and scarcely an hour went by that he did not try to look into it; but it was like looking into a darkened room at midnight. Mrs. Fink did what she could to help him, but none of her questions seemed to give him any light.

In the meantime three weeks had gone by; the holidays were close upon them, and there were the merry preparations of that season going on. The night but one before Christmas the Finks were all gathered in their little sitting-room, the young Finks frolicing about the floor, the old Finks looking on and putting in a word now and then. They had been talking of making one another presents, when there came a lull in the noise.

Father Fink turned suddenly upon the young stranger, saying, "And what do you want for a Christmas gift?"

The boy started. All the color left his face. He rose upon his feet, every muscle showing intense excitement.

"I'm Gift Furrows!" he cried; "and, oh, I run away from home!"

His words were met with breathless interest. They saw that the past had all come to him. He was overwhelmed, and dropped back into his chair. The children stood about, wide-eyed and scared. Questions were asked, and Gift told the story. His sentences were short and jerky; some were incoherent, all were passionate and tearful. Mrs. Fink wept with him.

"And you'll go home now, won't you?" said the mother, drawing near and placing her arm across his shoulders, her thoughts being of that other mother alone and far away.

"Yes," gulped Gift, making as if to rise and looking about for his hat.

"Not now; not to-night. There's no train. To-morrow," said Mrs. Fink, comforting him.

That night Gift slept but little. His brain was active with the joy of going home and the cruel stabs which his recollections now and then gave him.

The Finks accompanied him to the station on the morrow, and from the rear of the train he waved his last good-bys. There was a lump in his throat, but joy in his heart, as he thought, "I shall be home to-morrow—Christmas, and my birthday, too!"

CHAPTER IV.

Daniel procured his coffee and drank it in nervous haste, though it burned his throat all the way down. He heard the clanging of the bell as the train from the West came up, stopping between the one he had just left and the platform, preparatory to pulling out. Hurriedly paying for his coffee he rushed out into the night. The confusion seemed to have increased; several bells were clanging, and men were crying various unintelligible things. Daniel pushed on. He was sure he had stepped from his train to the platform, and now he entered the first car. He carried his luggage with him, so there was nothing left behind to mark his seat. The train began to move immediately.

The conductor, when he came through, took Daniel's ticket and then looked sharply at the man. "You've made a mistake," he said; "you've taken the wrong train. You should have taken the one on the second track."

"What!" cried Daniel, above the noise of the moving cars. "Ain't this train goin' to Chicago?"

"No," shouted the conductor, his body swaying with the car's motion. "This train's going east; going back over the road you just came," he added, looking again at the ticket. Daniel was filled with dismay. "Can put you off at the next station; you can get another train at midnight," the other explained. Then handing back the ticket he passed on. The noisy whir of the train came in as he opened the door to cross to the next car.

"Ticket," said the conductor, tapping the shoulder of the boy who stood looking out of the rear door of the last car. Gift turned from watching the two red lights on the platform outside and gave up his bit of pasteboard. The conductor wrote something on a slip and put it in the boy's hat.

"Live in Wolverine?" the official asked, thrusting his hands into the pockets of his blue coat.

"No, sir; six miles in the country," Gift replied. There was a moment of noisy whir. The boy eyed the man and envied him his position. "Do you know anybody in Wolverine?" Gift asked.

The conductor shook his head. "Man in the next car from your place. Going to Chicago. Got off at Elkhart; when he got on, got on wrong train." He smiled slightly, and Gift smiled, too.

After the man had sat down Gift wondered how it would seem to be conductor of a train. Acting on the impulse he walked down the aisle, glancing at the passengers on either side. Pleased with his bit of acting he crossed the platform and entered the next car.

It was ten o'clock when the train reached Wolverine and Daniel Furrows stepped from the cars. Hand in hand with him was his boy, who had been lost and was found. Linked thus each found ways of communicating to the other something of the feeling which otherwise was so hard to express. After the first burst of emotion following the moment when they had recognized each other each had been conscious of a great happiness. All the way they had sat hand in hand. The noise of the train did not permit of much conversation,

yet Gift had given the main points of his story and learned that he had been sought for, looked for and longed for all the three months of his absence.

At Wolverine they went directly to the livery-barn and procured a conveyance to drive to their home. The night was fearfully dark, and it rained at times; the mud made the road almost impassable. It was not cold, yet the father showed much solicitude for his son and had him nestle close to his side. They talked but little; each was thinking of the one at home.

When the clock struck nine that night Mrs. Furrows did not put away her work as was her custom. Her mind was full of thoughts of Daniel and her boy, and there was plenty of knitting to keep her hands busy. Ten o'clock and eleven o'clock came and found her thinking and knitting. The wind beat the rain against the kitchen window, and she turned her eyes thither with the thought, "What strange weather for this time o' the year."

Hark! Did she hear wheels?

"Whoa!"

"Why, that was Dan'el's voice!"

In an instant she had thrown open the door.

"Dan'el?"

"Yes, Marthy!" The voice was his, but made unnatural with joy.

At the same moment there was the cry of "Ma!" and a form came flying out of the darkness and threw arms about her neck.

"Gift! Oh, Gift! My boy—my boy!" Then the sobs and cries of the two mingled and became unintelligible. A moment later the mother had drawn her son into the light. She gazed hungrily into his face, where were joy, pain and tears. Again she pressed him to her heart. Daniel stood in the open door watching them. The muscles of his face were in a riot, and tears ran down his weather-worn cheeks.

"I'll never do it again! I'll never, never run away again!" sobbed the boy.

"There, there!" the mother soothed, with broken voice. "It's all right now; it's all right as you've come back. Your pa and I were awful lonesome; we couldn't live without you. But it's all right now; it's all right as you've come back."

Before Gift slept that night he slipped out to the barn, wondering whether he should find Billy there. He had wanted to ask, but could not through fear of knowing his pony was sold. As he pushed the door back on its rollers there came the whinny that the boy knew well, followed by quick movements in the pony's stall. Gift's heart swelled with another joy. Billy had recognized him! In a moment the boy's arms were about his favorite's neck and his cheek pillowed on the animal's heavy winter coat.

"Billy, Billy!" cried Gift, joyously, patting the pony's shoulders. "Billy, Billy, Billy! I've come back, Billy, never, never to go away again! Oh, it's been awful, Billy! But it was all my fault; it was all because I did wrong! They may do what they want to with me, I'll never run away again! It all comes o' my wrong, an' I'll never, never do it again! Billy, Billy, Billy!"

Gift thought he had slipped away unnoticed, but he had not made a movement since coming that his mother was not aware of. The door had not closed before she had risen. Her eyes met those of her husband's.

"I guess it's his pony," Daniel said.

"Oh!" she assented.

They were standing very near each other. It was months since Daniel had been able to meet his wife's looks, but coming back with the boy had given him heart. He knew no credit was due him, but he knew also that his wife gave him all the credit and always would. He drew her toward him. She put her arms about his neck and gave him such a soulful look; her lips just parted and the word "Dan'el!" escaped from them. Then she dropped her face upon his shoulder. His lips quivered. There was something he wished to say, but dared he trust himself?

"Marthy, I'm glad, too. It's be'n awful! It all come o' my wrong. I was a fool—"

"Don't say that, Dan'el!" Her arms tightened about his neck.

"I was a fool to punish the boy when I was so! Ye've never said that ye blamed me, Marthy, but I've knowed all along that in yer heart ye did."

"Oh, Dan'el!" she cried, protesting in anguish.

"Yes, I've knowed it; an' it was right that ye should. It all come o' my wrong! But what I want to say is that'll never happen ag'in—my drinkin'. I promise ye, Marthy, it'll never happen ag'in. I'll never touch a drop ag'in, Marthy—never!"

They were very quiet for a time; then she raised her face. "I am so happy, Dan'el!" she said.

The little clock on the shelf above the stove struck twelve. There was a movement of the latch and the door opened. They half parted, each extending a hand toward their boy as he entered.

With joyous face, but some diffidence of manner, he joined them, and in a voice that had the sound of vanished tears said, "Wish y' Merry Christmas!"

THE END

# THE CRAP-MONEY

BY FRANK H. SWEET

ANDY HOPKINS' face bore a contented expression as he remarked, "'Pears now like hit's goin' to be a good crap year—mellerin' weather an' jes' rain 'nough to keep the groun' from crispin'. If hit keeps on like this we kin shorely pay for the lan' come nex' crap, an' mebbe have sompin' lef' for a mule."

"An' what's hit all for?" asked Looizy. The girl spoke ludifferently and with the low drawl peculiar to the Georgia Cracker. "You-uns wuk harder'n ary man roun' hyer—harder'n the plantation niggers theirse'fs. An' what's hit 'mount to? They has spen'in'-money, an' goes to circuses, an' has sto' truck to eat, while we-uns jes' stick to pones an' grits an' wuk."

"But hit's to pay for the lan', Looizy," said the old man, eagerly. "After hit's done paid for we kin have mo' spen'in'-money. Th'll be no mo' rents—nor sheers. An' we-uns are the only pore fambly roun' hyer as are almin' to own lan' jes' like the quality fo'ks. I'm a-wukin' for you-uns mo'n for myse'f, Looizy; for you an' Betty an' Molly. I'd like to have you ekal to the bes' of 'em. But if hit'd be mo' pleasan'-like to have sto' things we mout spen' some of the lan'-money that way."

The girl made a quick, impatient movement.

"'Tain't the sto' things I keer for," she said, sharply; "I ain't after sech truck. But I 'low I hate everything roun' hyer; hit's triflin' an' no 'count. We-uns are pore, ign'rant Crackers, an' we cayn't he'p ourse'fs. Gettin' lan' ain't goin' to make we-uns quality. We mus' have l'arnin' an' manners an' know 'bout things. But we-uns cayn't l'arn, for there's no skewls an' no one as'll show us." Here she paused and dug her bare feet in the sand. After a moment she went on more slowly and with a side glance at her father, "You' an' Betty an' the neighbors 'low as I'm lazy an' triflin', kase I don't he'p in the fiel's an' roun' the house. But I don't keer! I don't keer for the lan', I don't keer for wuk, an' I 'low as I don't keer for anything or anybody!"

"Looizy!" There was wistfulness and entreaty in the voice, but not a shadow of reproach.

The girl hesitated, and a slight flush crept into her sallow face.

"Mebbe I don't mean it jes' that way," she said, doubtfully. "You are better'n mos' folks, daddy, an' I reckon I does keer for you some; an' I 'lows I keer for the birds an' woods—they has some meanin' to 'em. But 'cep'n' for these I 'low as livin' ain't no gret."

"You're outen sorts, Looizy, an' need mo' 'tractions. S'posen you go down to the settlemint 'long o' Betty an' me an he'p kerry aigs? Mebbe hit'll make you feel mo' pert."

She shook her head decidedly. "I hate the settlemint! The boys call me Wil'eat, an' Cracker Comit, an' fling things after me. But I 'low that I gen'rally fixes 'em!" and she gave a harsh little laugh, in which was a trace of exultation. "You-uns kin tote the aigs. I reckon I'll go fishin' down the creek."

The old man watched her uneasily as she passed through the truck-patch and out across the fields to where an irregular line of willows marked the location of the creek. As she made her way down through the long rows of cotton and tobacco, which still sparkled with the dew, her cheap calico lost itself in the richer hue of the growing plants. The sun had scarcely reached the tops of the willows, and some of its sparkles were caught in the tangles of the girl's golden hair and sent back into the patient eyes of the old man.

"Pore little gal!" he said, softly. "Pore little gal, as ain't ary maw to he'p an' show her! An' hit's jes' now as she needs a stronger han' than mine—a knowin' han', like a woman's, as mout lead an' shapen her. Looizy's dif'runt from Betty an' me; she cayn't be driv. Mebbe she's wil' an' sassy, like the neighbors say, but seems like I cayn't bring myse'f to be ha'sh. She's like her maw was, an' hit's the mounting blood that makes her fitified."

Not until the figure was lost in the dull green of the willows did the old man turn away; then he hurried briskly toward the cabin, as though to make up for lost time.

Andy Hopkins was a surprise to that neighborhood of indolence. He was a worker—a man who labored through the mere love of toil. The early years of his labor had been without object, and his industry had been lost in the shiftlessness of many relations; it was only when he married, late in life, that he became ambitious of owning land. His wife was a bright, energetic mountain girl, who had the quickness and readiness of resource, which he lacked. A two-mule farm was bargained for, and they began housekeeping in a cabin, which they hoped would soon be changed for a frame-house. But the house never came; instead, there were sickness and bad crops and poor markets.

The years went by, and he was left with the little ones to look after. Each "crap" had lessened the mortgage, but not much. The whole amount was but a few hundred dollars, and he had thought that a few years would remove it, but money came slowly. Fifteen payments had now been made, and Looizy had grown from a baby to a big, wilful girl, who was at once his pride and despair. She neglected even the small duties he imposed upon her, and grew sullen at anything that seemed like advice. Sometimes she helped him in the field, but not often; she preferred to roam the woods or wander up and down the banks of the creek. The cabin was left entirely to the care of patient, even-tempered Betty; even the cooking was shifted to the uncomplaining sister.

But Andy was hopeful. "Hit's the oneasy blood that's a-wukin'," he said. "Looizy ain't like we-uns. She has her sheer o' mounting blood. She'll come roun' all right after a while; but she mustn't be driv."

This year the outlook seemed unusually promising. The field-crops were doing well, and the truck-patch had never looked more flourishing. There had been showers to keep the ground moist, but no heavy rains to damage the growing plants. Andy worked early and late, and every day made him more confident that "the crap" would not only finish paying the mortgage, but would also purchase a mule. So far he had been obliged to "change wuk" with a renter "for the loan of a mule in plantin'-time." But now there seemed every prospect of a plentiful harvest; even the multitude of hens seemed determined to do their share toward making the season prosperous, and made the morning hours melodious with their vociferous cacklings.

It was late in the afternoon when Looizy returned from the creek. As she approached the cabin she saw a strange team move away, and one of the two men who occupied the wagon she recognized as the settlement doctor. Wondering what could have occasioned his visit, she hurried forward and soon reached the cabin. Opening the door she almost stumbled over Betty, who was lying on the floor, sobbing bitterly. But Looizy scarcely noticed her, for she was gazing at the motionless figure on the bed opposite.

"What is hit?" she asked, in a sharp whisper.

"Pap's done smasht awful!" wailed Betty. "What shall we do! What shall we do!"

The figure on the bed turned slightly and tried to raise itself, but sank back with a groan. In an instant she was by his side.

"What is hit, daddy?" she asked, softly, as she smoothed the gray hair from his face. "Kin I he'p to raise you, or—or anything?"

Andy looked up, and for a moment the knots of pain left his forehead and a look of pleased wonder crept into his eyes. Was this his Looizy—this soft-voiced girl who looked at him with the tender eyes of his dead wife? With the caressing touch of her cool fingers on his forehead it was easy to forget the long years of coldness and disobedience.

"You mus'n't be skeered, honey," he gasped; "hit—hit ain't nuthin' cep'in' for the pain an'—an' for losin' the crap." He turned his head so that he could look out of the window. The truck-patch and part of the cotton-field were visible. After a moment he went on, wistfully, "They looks mighty nice, honey; like's if they'd been keered for. But they'll hatter go now, I reckon. The neighbors are right much triflin', an' cayn't be 'pended on for wuk. 'Sides, we ain't the money to git he'p."

"But what is the matter, daddy—how's you hu't?"

Andy motioned ruefully toward the foot of the bed. "Hit's jes' one fut," he said, with a grimace; "on'y one. But the doctor 'lows it are plumb bad, an' that I'm to truckle right hyer on this bed for the Lord knows how long!"

"Pap was a-grabbin' for—for a pickaninny as was crawlin' in the road," said Betty, between her sobs, "an'—an' the runaway hosses stompt him. Nig—niggers shouldn't be 'lowed to have young-uns in the road."

"An' was the pickaninny saved?" asked Looizy, eagerly.

Her father nodded. "The chile wasn't to blame," he said, "an' I couldn't he'p a-grabbin'; an' shorely the young-un's wuth more'n hit's cos' me. I ain't a-mutterin' ag'in the hu't an' the pickaninny, but I do mos' p'intedly hate to lose the crap an' not have money for the lan'. If on'y I could have the hu't an' be able to wuk jes' the same!" He paused to catch his breath, and looked up anxiously into her face. "An' hit'll come harder on you-uns," he went on, regretfully, "a-tendin' an' a-frettin' an' havin' mo' wuk. But I cayn't he'p it, Looizy; not jes' now."

"Never min', daddy, hit'll come roun' all right," she said, quietly. "Jes' you res' easy an' don't worry. We-uns kin look after things."

"An'—an' you don't feel hard on me for gittin' hu't? I was studyin' how to make things mo' pleasan'-like, an' hyer I've done made 'em wuss. Hit'll be mo' wuk, Looizy honey, but I reckon you'll hatter he'p Betty now an' ag'in. They'll be the hens an' pigs to look after, an' the house-wuk an' the tendin'. We'll hatter be clost, but I reckon the hens'll 'bout gin us a livin'."

He looked up anxiously, but something in her face brought a quick smile to his lips, and he sank back with a sigh of relief.

"I done tole you not to fret, daddy," she said, softly. "Jes' you res' easy an' 'pend on we-uns to look after things. As for your hu't, I'm glad on hit," a slight flush creeping into her face. "Hit's wuth mo'n all the lan' an' the craps in the worl'. An' I'm gladder kase hit's a nigger as cayn't pay back! You 'member, daddy, how I dragged Mis' Kate's little boy outen the hoss-pond an' they 'lowed I done saved his life, an' how they sen' me a dollar by their coachman an' said I was a good gal? I was that mad I could 'a' flung the boy back an' watched him drown!"

"I b'leeve you did fling the money in the nigger's face," said Andy, smiling a little at the look of scorn and disgust on her face. "But we mus'n't keep hard feelin's, Looizy; likely they meant it all right."

As the night came on his foot grew more painful, and at times he was delirious. Looizy remained with him until after midnight, when, as he grew more quiet, she called Betty to take her place. Soon after the old man sank into a quiet sleep. It was late in the forenoon when he awoke. Betty was working about the room, and he could hear the voice of little Molly outside, calling the chickens.

"Where's Looizy?" he asked, when Betty approached the bed with his breakfast.

"I don't know. She done tuk some pone an' bacon an' lef' 'fo' sun-up. She 'lowed mebbe she'd be roun' 'fo' night an' mebbe she wouldn't. I axed her to he'p me firs', but she 'lowed as me an' Molly could look after the chores an' house-wuk."

The old man sighed. He had been hoping for better things from Looizy.

"Mebbe she'll he'p you to-morrer," he said at length. "Looizy ain't feelin' right pert lately, an'—an' she forgets. You mus'n't speak cross, honey, when she does come roun'. She ain't like we-uns, an' has right smart temper."

Soon after the doctor came and dressed the wound. After he left the old man spent the time in watching the clock and listening for the footsteps of his wayward girl. But the hours went by and she did not appear. The old man grew restless and uneasy.

"Pore little gal!" he muttered more than once. "She's young, an' don't realize. 'Cep'n' for that she wouldn't forget. I cayn't b'leeve as she don't keer."

In the meantime a half-grown girl was toiling slowly back and forth across the tobacco-field. The rows were long and the work hard and laborious, and the girl made little apparent progress. But gradually, as the hours went by, her position shifted from one side of the field to the other. All through the long, hot day she worked, not pausing to eat or rest, and only stopping when the shadows made it hard to distinguish the ground between the rows. Then she looked back at her work.

"Six rows done hoed!" she said aloud. "Hit's a good day's wuk, but I'm plumb tired!"

Throwing the hoe across her shoulder, as she had seen her father do, she moved wearily toward the cabin. On entering she found Betty in the act of setting the supper of grits and molasses upon the table. Her father was watching her drowsily and listening to the talk of Molly, who sat on the bed beside him. As Looizy entered he looked up quickly.

"You've been a long time," he said. "We've been lookin' for you right smart."

"I was busy," she answered, "an' couldn't spar' time for dinner. After this I'll try an' be roun' come noon. But how've you been all day, daddy?"

"Tol'ble pert." Then, as she sat down beside him, he reached out and took one of her hands in his and looked up into her face. Her eyes were clear, and she met his gaze with a little smile. What did it mean? Had he been charging her too harshly? He drew her hand closer and noticed that it trembled, as though with pain. He raised it to the light. "Why, Looizy"—there was wonder and dismay in the voice—"your han's all solid blister!"

"Hit's on'y kase they ain't used to the wuk," she answered, hastily. "I've been that lazy my han's are act'ally gettin' sof'. A few days in the fiel' an' they'll make good han's for wuk."

"An'—an' you've been a-wukin' in the fiel' all day," he said, slowly, "an' I a-lyin' hyer an' misjudgin' you! But you mus'n't do it, Looizy honey; hit's too hard. Hit'd be hard wuk for a man to keep sech a big crap goin'. If you 'low on he'pin' you mout look after the truck-patch. That'd be mo' easy, an' hit'd gin we-uns gyarden-stuff to eat 'long o' the aigs an' grits."

But Looizy shook her head. "I'm the oldes'," she said, "an' mus' look after the man's wuk. If Betty an' Molly have time from the housewuk they mout he'p in the truck-patch; I reckon I kin take keer the fiel's." Turning to Betty she added, briskly, "Are them grits mos' ready? I 'low I'm mons'rous hongry."

After supper she offered to sit up with her father, but both he and Betty objected.

"You're plumb beat out," said the latter, "an' cayn't sca'cely keep your eyes open. I shall sleep hyer on the floor, an' if pap wants anything he kin call me."

As the weeks went by Looizy's hands became accustomed to the work and the blisters disappeared. When she had finished hoeing the tobacco she went to the cotton-field; from here she went to the melons. This was to be her final hoeing, and she had to be careful not to bruise the runners, which were already covering the ground. It took her nearly two weeks to do the work to her satisfaction; then she went to the corn-field. In the meantime Betty kept up the housework, while Molly took it upon herself to provide the table with berries or some other delicacy from the pastures or truck-patch, but always insisted on spending most of the forenoons in the field with Looizy.

Each night the girls told their father of the day's work, and made plans for the morrow. Listening to their talk and watching the new interest that was coming into Looizy's face the old man grew less weary of his enforced idleness. As the spring days lengthened into summer he gradually recovered the use of his foot, and at last was able to hobble about the cabin.

One day Looizy came in with a glowing face. "The melons are ripenin'," she said, "an' there's goin' to be a pow'ful lot—mo'n we-uns ever had afore!"

"Then you'd better go over to ole Tompkins' after dinner an' have him come roun' with the waggin. He'll be glad to sell the best of 'em on sheers."

A few days later Looizy reported that thieves had entered the field the night before and taken some of the melons. That night the theft was repeated. Several days passed, and more of the melons were missed.

"I wouldn't keer so if they wasn't so pertic'lar," said Looizy; "but they jes' picks the bigges' an' hes'."

Late that night she was awakened by a small figure at her bedside.

"What is hit, Molly?" she asked, drowsily.

"I've done cotched 'em!" was the startling answer. "After you-uns was all 'sleep I jes' crep outen the cabin an' hid 'mong the melon-vines. Hit seemed mos' a year 'fore they come, an' I was plumb sleepy; but I jes' pinched myse'f, an' when they did come I up an tole 'em 'bout we-uns wukin', an' 'bout the lan', an' 'bout pap bein'

sick, an' 'bout Looizy 'lowin' they mout take the small melons an' leave the big ones."

"Molly!" Looizy sat upright in bed, for she was wide awake now. "Ain't you yarnin'?"

"I reckon not, kase I've got two dollars as the boys give me for the melons! They're nice boys, an' 'lowed they'd be roun' an' see you to-morrer. They're campin' up to Long Pou'."

The next morning as Looizy was on her way to work she was met by several of the boys.

"Miss Louise, I reckon?" said one of them, raising his hat.

"Looizy they calls me," was the quiet answer.

"Well, I—I suppose that queer sister of yours has told you about our raiding the melon-patch?" hesitating and coloring a little as he spoke. "But I assure you we meant no real harm. If we had known the facts in the case we would never have entered the field. Somehow melons and apples have always seemed different from other property. However," a quick, frank smile coming into his face, "that isn't what we're here for. We wish to apologize and to make some arrangements for the future. You see, we boys are very fond of melons—can't possibly get along without them—and we have decided not to pick any more after dark. We might go to the settlement after them, but that would be a long walk, and the melons would not be so fresh; besides, we have acquired a taste for yours. Now, if you are willing to trust us, we will act fair and square and pay you for every one we take. We shall want a lot, as there is another crowd of boys coming down from Augusta next week."

"Augusty?" looking up quickly. "I 'low that's where they has skewls—for girls, I mean?"

"There are several—good ones, I believe," he answered, looking at her with more than interest. "Do you think of going?"

"N-no! I jes' axed. I reckon you kin have what melons you want. We-uns are glad to sell 'em." And prices were soon agreed upon, and lived up to by the boys.

Before the melons were gone Andy's foot had so much improved that he was able to hobble out to the fields. Leaning on his cane and assisted by Looizy he went slowly from one field to another.

"Hit's a good crap," he said; "as good as I ever raised myse'f. Corn mos'ly eared, tobacco good, an' sca'cely any bumblebee-cotton in the whole fiel'. I cayn't hardly b'leeve as how one gal has done hit all! But you kin res' now, Looizy honey; I 'low I shall hire he'p to harves' the crap. The melons have done right well, and we kin spar' the money."

"I reckon there'll batter be some he'p to harves' the crap," was the answer, "but I 'low as I'll wuk 'long of 'em. I don't min' the wuk like I uster."

One afternoon a few months later Andy called the girls into the cabin. Going to his strong box in the corner he took from it a bag that was heavy with silver and small coins. These he emptied upon the table and divided into two piles.

"Hit's the mos' crap-money we-uns have ever had at once," he said, "if hit was made by a gal. Now this," pointing to the larger pile, "is for the lan'; hit'll pay hit all up, cl'ar. An' this," touching the other pile, "is for Looizy to go to school up in Augusty. I had a talk 'long o' the boys as bought the melons, an' they tole me 'bout Looizy axin' after the skewl. After that I went an' seen the sto'keeper down at the settlemint, an' he give me p'ints. This money'll pay for skewlin' to nex' crap, an' by that time there'll be mo'. Looizy kin bo'd 'long o' her Aun' Lizy as lives in Augusty. If I'd 'a' foun' out 'twas skewlin' as you was wantin' I mout be'ped you 'fo' now, Looizy honey."

The girl had listened with a growing wonder in her face. Several times she essayed to speak, then rushed from the cabin.

"Pore little gal!" said the old man, "I didn't know as she keered so much."

## ROCKY MOUNTAIN ADVENTURES

Nearly all the adventures of the region of the Rocky Mountains come from the satisfying of the sporting instinct. There is little lawlessness among the resident population, and what there is is strongly curbed by the Canadian mounted police. There is practically no mining. Mountain-climbing for exploration has probably caused more deaths than anything else.

Travel through this region in the winter season, while beset with hardships enough, is still much more agreeable than in the summer. Hunters and trappers usually locate in some habitation, and use it as a central point from which they search game, traveling on snow-shoes. Even when a long journey is necessary, the old, experienced trapper seldom thinks of taking a tent with him, but trusts to luck to find a big hollow tree for the night. Such trees are common in certain sections of the Canadian Rockies. They are all old and have only a thick outer shell. An old oak, six feet in diameter, affords an admirable place to bunk, provided the opening is not too large. The experienced hunter always looks for a hollow tree with the opening into it down close to the ground, as this prevents the possibility of a wild beast climbing in on top of him. Sometimes the man finds the hollow tree already occupied by a bear or a catamount, which he must fight or hunt another tree. If nightfall is already well advanced there is generally a fight, as hollow trees are hard to find in the dark by even the most experienced hunters, and in most cases the man gets the tree, and the skin of the wild beast, too.

When the hunter has completed his work he builds a fire in the snow, not far from the hole in the tree, cuts a piece of meat from his vanquished foe, and prepares his supper. And never does man partake of a meal amid more solemn surroundings. The air is still, and no sound breaks the silence except the cracking of the ice on the sleet-covered twigs. Rocks, canyons and gorges are buried deep under the snow, and the light from the camp-fire lights up the scene with a vivid glare.

His evening meal finished, the hunter crawls into the hollow tree and gets into his sleeping-bag, lying so that his head will be close to the opening. And there he sleeps as comfortably as if he were in a bed of a ten-dollar-a-day hotel in New York. Such an experience is usually an event to mark an epoch in a man's life, and yet to the hunter and trapper in the Canadian Rockies it is an every-day occurrence.

During the winter the moose and the wood-buffalo are hunted along the eastern slope of the Canadian Rockies. Both of these animals are still plentiful there, and are stalked in much the same manner as deer. But the hunting of the moose is more dangerous, and requires all the nerve a man has. The beasts are vicious, especially after a slight wound. They are hard to kill, and a rifle-ball must reach a vital point to drop the game. So the hunter, hindered at every step by cumbersome snow-shoes, must get quite near. When the time comes to shoot he must not waver, and yet he must be ready to run in case the beast should turn on him. The least mischance means death, for the moose's front feet are sharp. It has a trick of rushing at a man and striking an outward and downward blow that is likely to cut him in two. Dogs are generally able to take care of themselves as far as moose are concerned, but at the critical moment they can do little to help their master. When the moose driven to bay turns it always makes for the man, seeming, by some strange intelligence, to know who is the real enemy. For all this, moose-hunting is the most exciting sport to be found on the American continent to-day, and the man who loves adventure will get enough on one hunt to last him until another year. Then he will go after more moose. But it may be that he will never come back.—Ainslee's.

## AN INDIAN COURTSHIP

"We'd been there an hour, I reckon, when Big Eyes she got up an' come over to where I was settin', beside the chief, an' she stood there, right in front o' me, goin' up an' down, lookin' at me an' lookin' down to the ground. I didn't know what she wanted, till Little Bear he signed to me I was to dance with her. I wa'n't minded to be mean, not after the way they'd treated me. It looked easy enough, too; so I got up and commenced hoppin'. You oughter heard them squaws cackle! I reckon I did look some funny, 'count o' not havin' got the hang o' it; an', besides, I hadn't took more'n a dozen jumps till my wind gave out. 'Twas a dummed sight harder'n it looked. I felt like I'd run a mile over a big hill; but I wa'n't goin' to knuckle down. No, sir-ee! I kep' on best I could, an' was just wishin' I hadn't et such a ter'able big supper, when Big Eyes she unhitched the robe she was wearin' an' lifted it up in her arms t'ward me. We didn't stop jiggin', but she give it a whirl, comin' up clost to me, an' then she slung it right over our heads, an' before I knowed what she was doin' she'd ketched me round the neck with her arms and drawed my head down an' kissed me, smack! Indians are awful funny kissers, too. She took her time to it, an' when I got to thinkin' it over afterward I kind o' made up my mind 'twa'n't such a bad kiss; only it did taste tol'able strong o' buf'lo-taller an' wood-smoke. When she got done she sneaked out from under the robe quick, leavin' it hangin' over me, an' I was that hot an' rattled I thought I never would get it pawed off o' me."—A Frontiersman, in Leslie's Monthly.

## A WEST-POINTER CALLED DOWN

A young second lieutenant, who had been graduated from the first class a couple of months before the regular graduation at West Point, had just joined his regiment and was walking down the street near the palace. He stopped on the corner, and as he did so an old grizzled soldier with a growth of beard on his face and with a cavalry sergeant's stripe on his breeches, a blue shirt and campaign-hat, but with no other mark of rank about his uniform except his sergeant's stripe, walked slowly down and stopped in front of the lieutenant, looking around at the different buildings.

The young officer fidgeted a few moments under the manner in which the trooper ignored his proximity, and finally turned to him and said, sharply, "Here, you man, did any one ever teach you how to salute?"

"Yes, sir," drawled the trooper, as he glanced at the youngster.

"Well, knock your heels together," said the young officer; and the trooper came to attention with the precision of an old soldier.

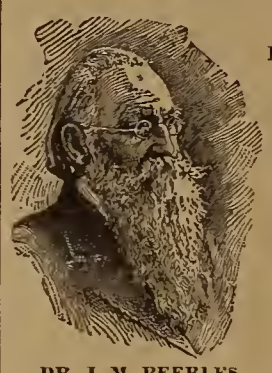
"Now salute!" he said; and the trooper's gauntlet came to the rim of his hat and stayed there until the young lieutenant answered it, at the same time demanding, "Now remember this, and don't let it happen again! What is your name, and what do you belong to?"

Without relaxing his position from attention the old trooper again respectfully saluted and remarked, dryly, "My name is Samuel Summer, and I'm brigadier-general of the cavalry brigade!" Whereupon the young lieutenant proceeded to copy as many colors of the rainbow with his face as possible, and slipped away as soon as he dared, forgetting even to apologize.—J. F. J. Archibald, on Santiago's Surrender, in Leslie's Weekly.

The sowing of evil seed is an irreparable evil; none can tell where the wind will carry it, and unexpected crops are found far and wide.—George Moore.


# HEALTH, VIGOR, STRENGTH

*FOR ALL WHO DESIRE IT*



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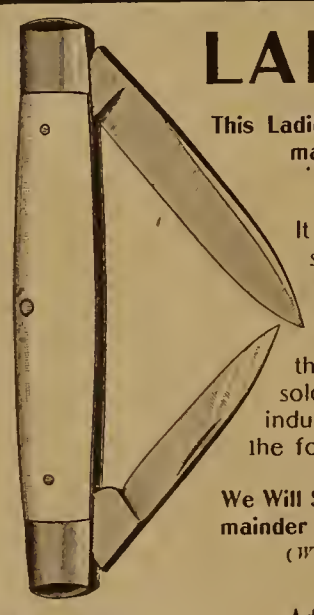

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### POOR GIRL

She may not tell me that her love
  Is all for me.
    Poor girl!
The world has put a seal upon
  Her lips, and she,
    Poor girl,
Must wait until I speak! She may
Not come with arms outstretched and say
She yearns to be mine own for aye—
    Poor girl!

But she has eyes wherein the glow
  Of love may lie,
    Poor girl!
And she has lips from which may come
  The long, sweet sigh,
    Poor girl!
A thousand ways she has to show
Her love for me—to let me know
Without exactly saying so,
    Poor girl!
    —Chicago Record-Herald.

### WENT AROUND

Before Bismarck reconstructed the map of Europe, and made a united Germany, a dozen little principalities used to annoy travelers by stopping them at their frontiers until they had satisfied the custom-house demands. A Yankee once had his carriage stopped at the frontier of a petty prince's country. The Herr Ober, controller at the custom-house, came forward, and, much to his indignation, was received in a nonchalant way. The Yankee was ungentlemanly enough not to get out of his carriage or even to take off his hat. The Herr Ober sharply demanded the key of the tourist's trunks, which his subordinate began handling roughly.

"Here, hands off!" shouted the Yankee. "I didn't come from the United States of America to be controlled by you! Put those trunks back! I'll not go through you at all! I'll turn back! I'm in no hurry, and don't care for losing a day! You're no country; you're only a spot! I'll go round you!"

And he did.—London King.

### LOVERS' PLANS UPSET

"Did you ask papa?" she questioned, eagerly.

"Yes; and it's all off," he responded, as one in a dream.

"Why, did he refuse?"

"No; but he said when I asked to take you away from him I was asking to take away the light of his life; that the home without you would be a prison-cell."

"Well, all papas say that, you big, tender-hearted fellow."

"I know," he responded, huskily; "but it isn't that."

"What is it, then?"

"Can't you see? He expects me to take you away from home, and I wouldn't have the nerve after he talked like that to stay—and—er—well, don't you see?"

"I see," she answered, coldly.—Indianapolis Sun.

### IT TRIED HER FAITH

They were sitting on the sandy beach, and no word had been spoken by either for a full minute.

"You doubt me!" he at length exclaimed. "Have I not told you over and over again that I love you, and you only; and did I ever tell you an untruth, Katherine?"

"I would that I could have absolute faith in you," she replied, stifling a sob, "but I heard you tell uncle that you once caught a brook-trout that weighed three pounds and six ounces." And the tears flowed down her fair young face, while he tapped the sand with his foot and solemnly gazed o'er the wide blue sea.—London Answers.

### UPSETTING ARITHMETICAL TRADITION

Jack—"How did you come out on that bulldog pup you bought?"

Dick—"Lost over one hundred per cent on the transaction."

Jack—"Oh, I guess not! One hundred per cent is all you can possibly lose."

Dick—"Think so, do you? Well, I paid ten dollars for the pup, and then I had to give a boy one dollar to take him out and drown him. If that isn't one hundred and ten per cent loss, I'd like to know what you call it."—New York Sun.

### THE POLITE PROFESSOR

The palm for absent-mindedness should be accorded to a learned German professor. One day he noticed his wife placing a bunch of flowers on his desk. "What do they mean?" he asked.

"Why," she exclaimed, "don't you know that this is the anniversary of your marriage?"

"Ah, indeed, is it?" said the professor, politely. "Kindly let me know when yours comes around and I will return your attention in kind."—Collier's Weekly.

### REDUCED

"You know Weightman, the big, stout clerk at our store?"

"Yes; he must weigh over two hundred."

"Well, he saw an advertisement in the paper, 'Fat folks reduced, one dollar,' and answered it."

"Didn't he hear from them?"

"Oh, yes; it was just as advertised."

"That's good; how much has he been reduced?"

"Why, one dollar."—Philadelphia Bulletin.

### HER POINT OF VIEW

In one of St. Paul's parks the other morning a neat-looking young woman was doing her best to learn to ride a bicycle. Curiously enough, she had practically acquired the art of mounting, but was as yet unable to ride more than a short distance before her wabbly gait resulted in a dismount or an aggravating tumble. She kept pluckily at it, however, and the group of boys watching were half inclined to jeer, half inclined to cheer.

Without observing it the fair learner had slowly worked herself along to a spot not very far from the edge of the park lake. Unfortunately her wheel suddenly turned, and before she could

jump off she and the bike were both rolling in the water. The boys howled with delight, which so exasperated her that she came out of the water, shook herself like a wet dog, and turning wrathfully on Young America, said:

"What are you laughing at? I don't see anything so d——n funny about it!"

Then she blushed furiously, and made the best of her way to the nearest house, where a kindly matron gave her a change of clothing.
—Northwest Magazine.

### LOOKING HIGHER

Lady (interviewing parlor-maid)—"I'm afraid you're too good-looking. You see, I have grown-up sons, and young men are so thoughtless and given to flirting."

Swell parlor-maid (loftily)—"You need not worry yourself about that, madam; I have higher aspirations than your sons. I am engaged to a professional cricketer, and one of the best."—Tit-Bits.

### A NATURAL MISTAKE

Policeman—"Look here, my friend, the neighbors tell me that you beat your wife every day at about this time, and I have called to tell you that it has got to stop."

Surprised citizen—"Beat my wife? Why, what in the world—oh, I know what you mean; that's my oldest daughter learning to sing!"—Louisville Journal.

### TOO HONEST

First bank director—"I think we'd better let Collins go."

Second bank director—"Why? He's been our cashier for twenty-five years."

First bank director—"I know; but he's too infernally honest. We don't get a chance to do any financiering."—Harlem Life.

### ROMANCE ENDED

"When are you going to marry the floor-walker?" asked the girl behind the catchup-counter.

"Oh, that's off," said the girl in charge of the sugar-counter. "He says we can't afford to marry on my salary, and he needs all his own to support the dignity of his position."—Chicago Tribune.

### GOOD CAUSE TO MOURN

Undertaker (to bystander at funeral)—"Are you one of the mourners?"

Bystander—"I am, sir."

Undertaker—"What relation to the deceased?"

Bystander—"None at all; but he owed me five dollars!"—Chicago News.

### PARTNERS TO THE LAST

A Southern darky, wishing the inhabitants of the village to know that he and his venerable partner had decided to retire from active life, astonished them one morning by placing the following sign above the door of the establishment:

"Dis am to infohm de public dat me an' Ike am goin' out of bis'ness. Dem dat owes de firm may set'le with me; dem dat de firm owes may settle with Ike."—Life.

### SILENCING HUBBY

Young father (in the future)—"Great snakes! Can't you do something to quiet that baby? Its eternal squalling just drives me wild!"

Young mother (calmly to servant)—"Marie, bring in my husband's mother's phonograph and put in the cylinder 'At Ten Months.' I want him to hear how his voice sounded when he was young."—New York Weekly.

### PLEASANT SURPRISE

"Yes; he's living in Kentucky now, and he says he's delighted."

"Huh! I can't imagine anybody being delighted over living in Kentucky."

"You don't understand. He means he's delighted that he's living."—Catholic Standard and Times.

### AN UNLUCKY THROW

"Invade England!" exclaimed the enthusiastic Frenchman. "Easiest thing in the world. Why, sir, in twelve hours we could throw an army of one hundred thousand men into England!"

"Possibly, possibly!" replied his less enthusiastic countryman; "but what if the English should refuse to throw the army back?"—Puck.

### HIS THEORY

Customer—"You see, Seth Green and Cy Black traded horses, an' both of 'em think they're stuck."

Storekeeper—"Then why in the world don't they trade back again?"

Customer—"I dunno, unless they're afraid of gittin' stuck twice."—Puck.

### THE MODEST CELT

"What I like about the Irish is that they are so modest and unassuming."

"Holy smokes!"

"Fact. When an Irishman does anything great he does not go bragging of his ability, as another man would. He merely brags about Ireland."—Indianapolis Journal.

### A MERCENARY VIEW OF IT

"Now that you have paid every respect to the memory of your departed husband, I am sure that I cannot be accused of disrespect in asking you if you will marry again."

"I am sure I can't say. I thought I was marrying a gain when I married my last husband."—Boston Courier.

### AN OLD IDEA

"Dese hoss'less kerriges ain't so much," said Mr. Erastus Pinkly.

"Dey's all de talk," replied Miss Hiami Brown.

"Co'se dey is. But it's a back-number scheme. What were de fust steamship but a muleless canal-boat?"—Washington Star.

### EGGS AND EGGS

"Pa, out to gran'ma's we had real hens' eggs."

"Well, what other kind of eggs are there, Dicky?"

"Why, pa, you said all th' eggs we get in town are cold-storage eggs."—Indianapolis Journal.

### HANDY

"This man," said the keeper, softly, "imagines he has millions."

"Isn't that nice?" answered the visitor. "Whenever he needs money all he has to do is to draw on his imagination."—Kansas City Times.

### CHANGE IN THE MENU

The cannibal chief—"You say you are going to give me a batter-pudding to-day for dinner?"

The cannibal chef—"Yes, your excellency. We found a stranded base-ball nine near by yesterday."—Yonkers Statesman.

### HOW HE FOUND THEM

"William, go up to my room; back of my wardrobe there are—"

"Cigars, sir?"

"Yes; how did you find them?"

"Oh, very good, indeed, sir!"—St. Louis Star.

### IN MEMORY OF OTHER DAYS

Tommy—"Mama, why have you got papa's hair in a locket?"

His mother—"To remind me that he once had some, Tommy."—Jewelers' Weekly.


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DR. JAMES WILLIAM KIDD

himself, produced as a result of the years he has spent in searching for this precious life-giving boon, to cure any and every disease that is known to the human body. There is no doubt of the doctor's earnestness in making his claim, and the remarkable cures that he is daily effecting seem to bear him out very strongly. His theory which he advances is one of reason and based on sound experience in a medical practice of many years. It costs nothing to try his remarkable "Elixir of Life," as he calls it, for he sends it free to any one who is a sufferer in sufficient quantities to convince of its ability to cure, so there is absolutely no risk to run. Some of the cures cited are very remarkable, and but for reliable witnesses would hardly be credited. The lame have thrown away crutches and walked about after two or three trials of the remedy. The sick, given up by home doctors, have been restored to their families and friends in perfect health. Rheumatism, neuralgia, stomach, heart, liver, kidney, blood and skin diseases and bladder troubles disappear as by magic. Headaches, backaches, nervousness, fevers, consumption, coughs, colds, asthma, catarrh, bronchitis and all affections of the throat, lungs or any vital organs are easily overcome in a space of time that is simply marvelous.

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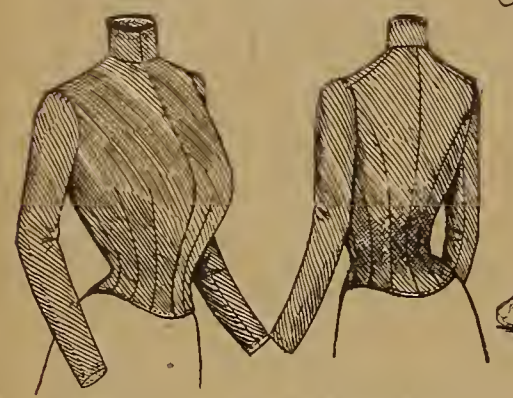

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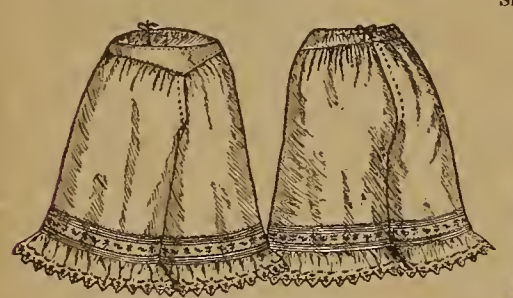

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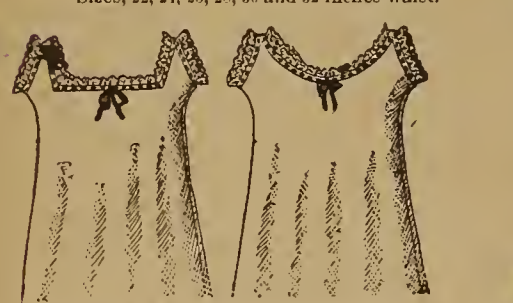

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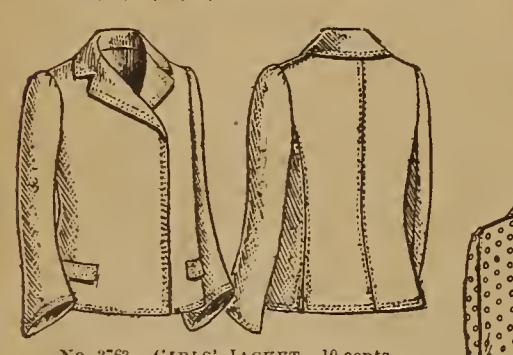

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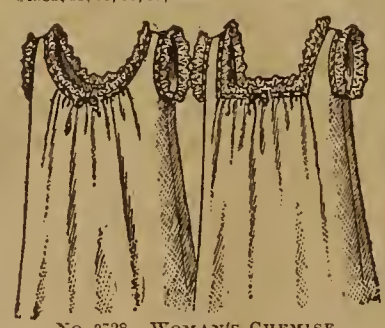

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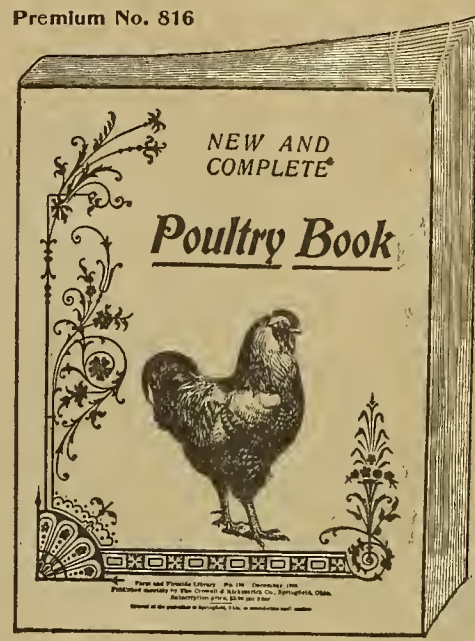


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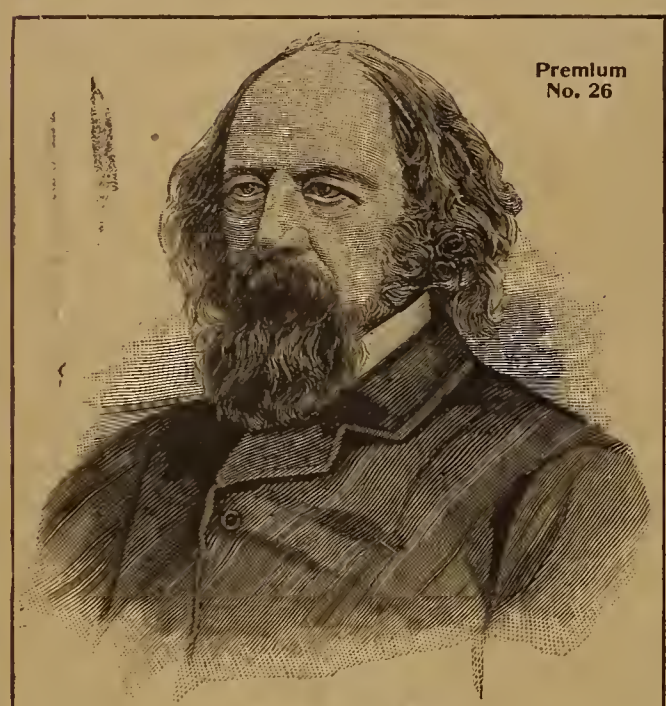


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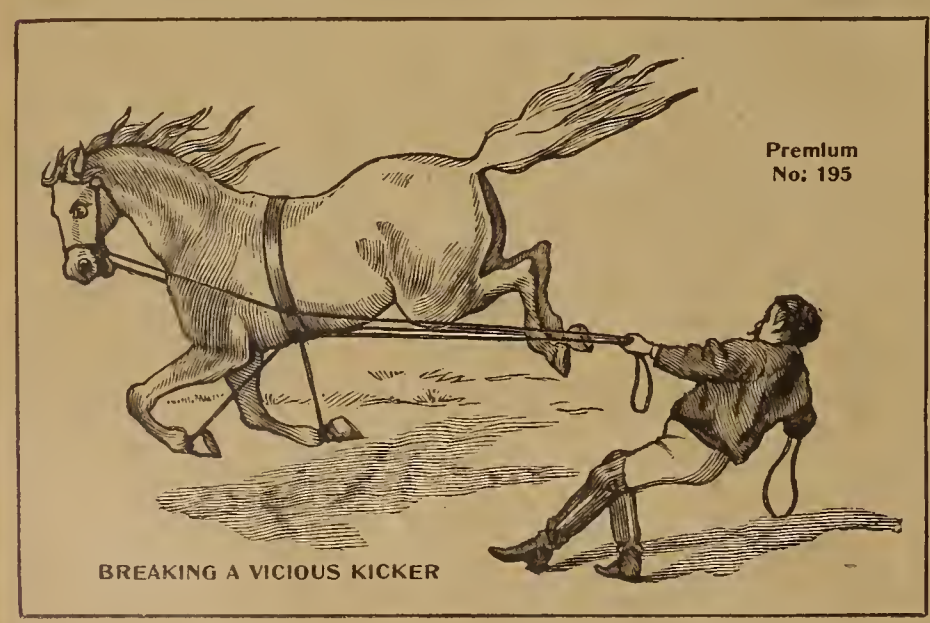


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Vol. XXIV. No. 22 WESTERN EDITION AUGUST 15, 1901 Entered at the Post-office at Springfield, Ohio, as second-class mail matter TERMS {50 CENTS A YEAR 24 NUMBERS

# A Story of Arid Agriculture

BY H. A. CRAFTS

SCIENTIFIC agriculture is growing in favor in all the civilized nations of the earth. The endeavor appears to be to make it popular; to confer its benefits upon the small farmer as well as the large. And in spite of the ancient prejudice against "book-farming" it is making solid and substantial progress. A single year may not mark a perceptible advancement; but how about a period of years—say a quarter or half a century, mere spans when considered with the countless ages of time? Compare the farm methods in our own country to-day with those in vogue a single generation ago. Has there not been a vast uplift from the primitive conditions of old? Yet with all the wonderful advancement made what a vista of vast possibilities still spreads itself before the thinking mind!

In our own pastoral economics new problems are still presenting themselves. One of these problems is arid agriculture. This is a study that stands widely separated from the question of humid agriculture. It implies the artificial application of moisture to growing crops as against the natural rainfall. It includes the separate science of irrigation, as well as the study of arid soils and the effect upon them of continued irrigation.

And how few there are, comparatively, either in our humid or arid regions, who pause to consider the vast extent of our rainless areas! I think I am not far out of the way when I venture to say that they cover at least one third of the nation. And there are sections that have hitherto been classed with the humid areas that are looking with jealous eye to the successes achieved by the aid of irrigation in neighboring states. Even those fertile and fecund commonwealths—Kansas and Nebraska—are ready to dispute with Colorado and Wyoming the right to a portion of the water that flows in those streams which have their rise in the Rocky Mountains, and has hitherto found its way to and across their western borders.

Yet outside of the question of the mere extent of territory there are other aspects equally imposing in their importance and in their absorbing interest. First take the intrinsic utility of arid agriculture. Doubtless some of our Eastern readers, especially those of the Mississippi Valley, will except this proposition with a shrug of incredulity; but I understand from good authority that arid agriculture has been proven to be the most profitable of all, and the remarkably developed agricultural wealth of California is given in evidence. Next comes the possible expansion of arid agriculture. As yet it is in its infancy. Private capital has been slow to embrace irrigation enterprises; public capital has not yet touched them with its finger-ends. In this matter of expansion it is not a question of land. There are millions of acres and to spare that are adapted to irrigation. Water is the thing, and there is enough of this running to waste every year which, if utilized, would transform the whole original "American Desert" into a garden-spot. But it is only a question of time when these channels of agricultural expansion will be opened by both public and private capital.

Next comes the importance of an extended irrigated area as a base of food supply in the event of wide-spread drought in the humid sections. In arid agriculture, where an adequate water supply is at hand, the production of a crop is not a matter of faith, but of will. For twenty-one years I have lived in the midst of one of the typical irrigated districts of Colorado, and have yet to witness a crop failure. Many a spring have I seen our farmers shake their hands dolefully and express grave doubts as to the coming harvest. Dry winters have succeeded dry autumns, when, indeed, the prospects were dubious; but in the end there was a crop to harvest. The present season is not an exception. Early in March the fields of Colorado were so dry and hard-baked that it was next to impossible to plow them up and get them in shape for seeding. On the ninth of April I gazed forth into the white maze of a blinding snow-storm. All night rain fell in torrents. Then the temperature fell, and the storm changed to snow. The flakes were big and moist, and fast clothed the earth in a thick, white fleece, and decorated the trees and shrubbery in vestal robes. It was the third storm of the kind that visited us in three weeks. The whole face of farm affairs was changed as if by magic. The plowed fields were heavy with moisture, and the subsoil received large supplies of reserve force. The seed already sown came up, fresh grass sprang up all over the great cattle and sheep ranges, and vast quantities of snow accumulated in the mountain ranges to melt later on and fill all the irrigating-ditches to overflowing. We received at a single bestowal those blessings which not only assured us of a favorable seed-time, but also of a bountiful harvest.

As to the importance of the question of arid agriculture there appears to be a universal awakening, and here in Colorado a reawakening. In April there was in session in the department of physics and irrigation engineering of the Colorado State Agricultural College what is known as a short course in irrigation. It was the first ever held in the state. It was conceived by Prof. L. G. Carpenter, the able head of that department. It is designed to benefit the executive officials of the various ditch companies of the state, such as ditch superintendents, ditch-riders, etc., in giving them clearer and broader ideas in the management and distribution of water. The course is meeting with eminent success. It was well attended, and lectures were delivered by prominent ditch officials, state irrigation officials, irrigation lawyers, legislators and others. The proceedings were held in the presence of the student classes in irrigation engineering, so that they were of twofold effect.

Across the way, in the agricultural hall of the college, sat Prof. B. C. Buffum, the new agriculturist of the institution, giving the finishing touches to the final proofs of a new and neat little magazine, to be issued from the department bimonthly and to be called "Agricola Aridus." It is just what its name implies—an exponent of the principles of arid agriculture. It is for free distribution to every bona-fide farmer in Colorado. To show the spirit in which it has been conceived, it may be stated that the publication is financially backed by the voluntary contributions of the college faculty and corps of assistants, and it is edited by Professor Buffum, in addition to the many arduous duties connected with the conduct of his department. It is an organ of the department, of the Students' Agricultural Club and the State Grange Patrons of Husbandry, and promises to be productive of great good.

AGRICULTURAL HALL, COLORADO AGRICULTURAL COLLEGE
Farm Lodge and Rocky Mountains in Background

## THE MISSION OF THE AGRICULTURAL COLLEGE

The old-fashioned college knows its own mind and method. The backwoods "university" that is hardly more than a respectable academy is never in doubt about its curriculum or the wisdom of stuffing its students with Greek. For a thousand years the main lines of work of such schools have been laid out. They never question the soundness of their plan. They ask no advice. Why should they? Have not the great men of the modern centuries been trained by their methods and by teachers who never knew other methods?

But the agricultural college is a new thing under the sun. It began its work with an appropriation, but without a definite plan. There are forty or fifty agricultural colleges in the United States, each of them unlike every other one, every one of them modeled in some degree after the fashion of the classical college. A considerable number of them are departments of state universities, as in California, Minnesota and Wisconsin. Others are independent, as in Kansas, Colorado and Michigan—the latter the mother of most of the independent institutions, its graduates the controlling spirits in a large share of the younger colleges. The agricultural colleges of Colorado and Kansas are types of those modeled after the Michigan pattern, and partaking of its spirit, though each has departed in important respects from the plans of the mother-college.

I have said that the agricultural colleges started with an appropriation, but without a plan. The saying is too true. It was easy to spend the appropriations, but not easy to discover an appropriate work for the new colleges, although the act which authorized their creation seems plain enough in its provisions and mandates. It declared that the "leading object" of these schools was to be "to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes." It was not easy to find men who could plan and carry on a scheme of education and training in harmony with the idea behind the Morrill Act, and it is probable that few intelligent efforts were made to find such men. Who was competent to select the first one?

And when it did happen, as in Kansas in 1873, that a president was chosen who had original ideas and organizing power, who believed in educating the industrial classes along industrial lines, his difficulties were made harder to overcome by his own subordinates, who were wedded to the methods and the purposes of the classical colleges of the time. President Anderson, shortly after he had reorganized the Kansas Agricultural College in harmony with the purpose and provisions of the Morrill Act, came home from a trip through the state in the interest of the college to find that his faculty had organized a rebellion, so determined were they not to allow the college to experiment with the new course of study outlined by a president who was not in harmony with the old ways. A weak man would have submitted. But Anderson was not weak. He called the faculty together, told them that the regents of the college had authorized him to reorganize the whole institution, and pointedly asked them if they were going to work with him or against him. He had his way, and did a great work for one of the most successful of the agricultural colleges.

But the agricultural colleges have learned and are learning. The boards of control of some of them are learning that it is wise and profitable to give college men time to think, time to plan, and that a college president or professor can earn his salary without spending ten hours a day in routine work. They are learning that the best work is being done by the men who are given time and liberty to work without too much supervision; that a college president must be a growing man or a failing man, and that growing men who have an enthusiasm for their work ought to be given opportunity to experiment even with courses of study.

The mind that is full of the trifles of never-ending daily duties is not a good place for large ideas to originate and develop. The gospel of work is a good gospel to preach and to practice, but it is not the only good gospel. It pays to sit and think—not to

[CONCLUDED ON PAGE 5]

# FARM AND FIRESIDE

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## WITH THE VANGUARD

THE special correspondent of the "Record-Herald," Mr. William E. Curtis, now in Scandinavia, recently sent an interesting letter on the world's finest butter, which reads in part as follows:

"The butter of Denmark is considered superior to that of all other countries. It brings the highest price in fancy markets, and can be found all over the world in shops where luxuries are sold. In South America, South Africa, in the East and West Indies, in India, Egypt and in tropical countries generally it is used by epicures, who pay one dollar a pound for it in tins of one, two and three pounds weight. No other country has been able to produce butter that will stand changes of climate so well. In Holland and Sweden attempts are made to compete with the Danish dairymen; but the butter from those countries is worth only half as much, and does not keep half as well, while the efforts of dairymen in the United States have practically failed, with a few isolated exceptions. There is one creamery in Iowa, I believe, which produces butter that stands the tropic heat comparatively well, and will melt and solidify as it passes from a colder to a warmer and then to a colder climate, like the butter made in Denmark.

"At the 'Landbohojskolen,' as the agricultural college is called in Danish, the people in charge of the dairy department again assured me that no secret is involved in the preparation of Danish butter. They said the commission-houses in Copenhagen bought butter here and there from the farmers throughout the entire kingdom, which was shipped in small or large packages to headquarters, where it was mixed and carefully worked over, in order that every particle of milk should be completely expelled. It was then uniformly colored with the juice of the ordinary garden-beet, and hermetically sealed in tins.

"'The whole secret,' said my informant, 'is nothing but scientific cleanliness, together with sterilizing all the milk and cream used.'

"Refrigerator ships are now found on nearly all the big steamship routes, and they can carry perishables as long and as far as necessary; but butter shipped by the ordinary cargo steamer usually melts and remains in a liquid state as long as it is exposed to the tropic heat. When it passes into the temperate zone again it hardens, and the change usually spoils it for the taste, entirely destroying the flavor and leaving it like ordinary grease or oil. The Danes, however, produce a butter which will endure this ordeal without affecting its flavor or sweetness, and they are the only people of whom this may be said.

"Therefore it is the popular impression that some secret process is used, either in the preparation or the packing of their butter, and I was diligent in trying to ascertain the facts. Every butterman I met assured me that the Danish butter was made in the same manner and contained the same ingredients that are found in the butters of other countries, except that the Danish dairymen were more patient and careful in its preparation. There was no secret process, no preservatives were used, no chemical change was produced before packing. Nevertheless none of the several butter-packers in Copenhagen would allow me to inspect their establishments."

IN HIS London address before the British Tuberculosis Congress Dr. Koch, the world's greatest living bacteriologist, said:

"The sputum of consumptive people is to be regarded as the main source of the infection of tuberculosis. On that point he supposed all were agreed. The question now arose as to whether there were not other sources, too, copious enough to demand consideration in the combating of tuberculosis. Great importance used to be attached to the hereditary transmission of tuberculosis. Now, however, it has been demonstrated by thorough investigation that though hereditary tuberculosis was not absolutely non-existent it was nevertheless extremely rare, and we were at liberty in considering our practical measures to leave that form of origination entirely out of the account.

"Another possibility of tubercular infection existed, it was generally assumed, in the transmission of germs of the disease from tubercular animals to man. This manner of infection was generally regarded nowadays as proved and so frequent that it was looked upon by not a few as the most important, and rigorous measures were demanded against it in this congress. The discussion of the danger with which tuberculosis of animals threatened man would play an important part now, as his suggestion had led him to form an opinion deviating from that which was generally accepted. He begged their permission, in consideration of the great importance of this question, to discuss it a little more thoroughly. Genuine tuberculosis had hitherto been observed in almost all domestic animals, and most frequently in poultry and cattle."

Describing experiments made to determine the difference between human and bovine tuberculosis Dr. Koch said:

"A number of young cattle which had stood the tuberculin test, and might therefore be regarded as free from tuberculosis, were infected in various ways with pure cultures of tubercle bacilli taken from cases of human tuberculosis. Some of them got tubercular sputum of consumptive patients direct. In some cases tubercle bacilli, or sputum, were injected under the skin, in others into the peritoneal cavity, in others in the jugular vein. Six animals were fed with tubercular sputum almost daily for seven or eight months. Four repeatedly inhaled great quantities of bacilli which were distributed in water and spattered with it in the form of spray. None of these cattle, and there were nineteen of them, showed any symptoms of the disease, and they gained considerable in weight.

"From six to eight months after the beginning of the experiments they were killed, and in their internal organs not a trace of tuberculosis was found.

"The result was utterly different, however, when the same experiment was made on cattle free from tuberculosis with tubercle bacilli that came from the lungs of animals suffering from bovine tuberculosis. After the incubation period of about a week the severest tubercular disorders of the internal organs broke out in all the infected animals. After death extensive tubercular infiltrations were found at the place where injections had been made and in neighboring lymphatic glands, and also far advanced alterations of the internal organs, especially the lungs and spleen. The difference between human and bovine tuberculosis appeared not less strikingly in similar experiments with asses, sheep and goats, into whose vascular systems the two kinds of tubercle bacilli were injected. These experiments were not the only ones that have led to this result."

Regarding a question which has been, and will continue to be, the subject of very earnest discussion Dr. Koch says:

"Now, how was it with the susceptibility of man to bovine tuberculosis? This question was far more important to us than that of the susceptibility of cattle to human tuberculosis. Highly important as it was, it was impossible to give this question a direct answer because, of course, experimental investigation of it with human beings was out of the question.

"Indirectly, however, we could try to approach it. It was well known that milk and butter consumed in great cities very often contained large quantities of the bacilli of bovine tuberculosis in living condition, as numerous infection experiments with such dairy products on animals had proved.

"Most of the inhabitants of such cities consumed such living and perfectly virulent bacilli of bovine tuberculosis, and unintentionally carried out the experiment which we were not at liberty to make. If the bacilli of bovine tuberculosis were able to infect human beings many cases of tuberculosis caused by the consumption of alimenta containing tubercle bacilli could not help but occur among the inhabitants of great cities, especially children. Most medical men believe this was actually the case. In reality, however, it was not so.

"What had hitherto resulted from this investigation did not speak for the assumption that bovine tuberculosis occurred in man, though the important question whether man was susceptible to bovine tuberculosis at all was not yet absolutely decided, and would not admit of absolute decision to-day or to-morrow. One was nevertheless already at liberty to say that if such susceptibility really existed, infection of human beings was but a very rare occurrence. He should estimate the extent of infection by the milk and flesh of tubercular cattle and butter made of their milk as hardly greater than that of hereditary transmission, and he therefore did not deem it advisable to take any measures against it. So only the main source of infection of tuberculosis was the sputum of consumptive patients, and measures for the combating of tuberculosis must aim at the prevention of dangers arising from its diffusion."

## THE ON-LOOKER

THE advertising of goods for sale has become a most interesting feature of modern business methods. Nearly all successful merchants use printers' ink freely in calling public attention to their wares. The writing of advertisements for newspapers and journals is an art, and some of the most skilful writers of such matter command salaries greater than those paid to the jurists who preside over our highest courts of law. The value of these writers lies in their ability to place goods before the public in such a way that demand for them will be created. This requires knowledge of the goods, and especially does it require an understanding of the public and of the peculiarities of the human mind. It is this latter characteristic that makes skilfully prepared advertising matter especially interesting to me.

Our wants increase with our income, and he is most successful who can cause our newest want to be of the class which his goods supply. The advertiser appeals to love of financial gain, of personal comfort, of health, of fashion, of novelty, of progress along every line. He is truly an agent of civilization, and does much to raise the standard of living. He is an educator, and the intelligent public keeps in touch with the world through the advertising columns as well as through the reading matter of publications that carry the advertisements. But the ultimate object of an advertisement is to find purchasers, and appeals are based chiefly upon one or two qualities—extraordinary merit or unusual cheapness—using the latter term as a synonym of low price.

Let one read in the morning paper the page advertisement of a great merchant presenting the various attractions of the house for the day, and then take a stroll for an hour through the establishment. He will be impressed by the fact that it is cheapness that attracts the mass of buyers. A low price catches. The so-called "bargain" counter is the popular one, and the departments in which the merits of the goods were made the chief point are comparatively deserted.

In all soberness we know that a very low price and merit rarely go together. Why, then, this craze for cheapness? I incline to think that inability to judge of quality has much to do with it. Very many are not expert in judging, and when two articles are reasonably similar in appearance we select the one calling for the least expenditure, reasoning that if it prove worthless the loss will not be serious. Another factor in this greed for cheapness is ignorance of cost of production and distribution. Not knowing what a fair price for an article of merit should be, we demand that an impossible price for such an article be made us, and patronize those who counterfeit the appearance of the genuine at the impossible price. Then, too, the love of display plays a part. Wanting to make a better show than income justifies, we buy of those who can supply us freely for a small sum of money. Last of all, there is the ever-present hope for a downright bargain—a purchase below the true value on account of the necessities of the seller. These things conspire to compel dealers to supply the market with goods at a price that makes high quality an impossibility.

There is too much counterfeiting, adulteration and false pretense in our markets, and this is true because the public demands it. Occasionally we rouse ourselves and enter a vigorous protest against the adulteration of food and drugs and against the substitution of shoddy for wool and against other similar evils in commercial life, and we make demands for legislation that will protect us against these impositions; but I insist that the blame for these evils should rest largely upon the people, and that the cure for them must be found in a change of methods and habit of thought among buyers. I would not condone the sin of the man who sells a counterfeit for genuine goods. He needs punishment. But how about the masses who demand goods at counterfeit prices, and pass by the genuine, high-grade article because its cost of production makes its selling price higher than that of the fraud? The demands of the masses will always be supplied in great degree, and our only hope for recovery from present ills lies in a public sentiment against false pretense and in a demand for merit. The merchant to-day fears nothing more than the reputation of having a high-priced shop, and we drive him to offering cheap, counterfeit, shoddy, short-lived stuff. The advertiser knows us, and consequently appeals to our love for prices made on a counterfeit base. When we want merit the skilful advertiser will appeal to our love for it. Then we shall secure true cheapness on an elevated, honest, self-respecting business plane.

O—L.

## ABOUT RURAL AFFAIRS

**The Fruit Outlook** What a difference in the fruit crops in this state between last year and this! Then a good crop of cherries, pears and plums and an enormous crop of apples; now hardly enough of tree-fruits worth mentioning. The apple crop last year alone brought millions of dollars into this state. I had a little slice of the prize myself. Every fruit-grower felt happy, and the conditions were such that the idea of forming a New York State Fruit-growers' Association was readily taken up. Although it is true that this organization owes its inception more to the San Jose scale, or San Jose scare, if you will, than to any other one cause, yet the aims of the association have at once broadened so wonderfully that this first impulse has almost been lost sight of. What the fruit-growers' combine is trying to do is, in the first place, to take hold of the market-end of the business. Heretofore we have been largely in the dark concerning the true state of the fruit crops. The buyers were better posted than the producers, and in making bargains, therefore, always had the advantage of the seller. Many farmers, under the impression (or being told by the speculators) that the apple crop was really enormous all over the country, and far beyond any possible demand, sold their apples for little, if anything, more than one half the price they could have obtained for them. In order to be able to judge what prices our apples and other fruits ought to bring us we must first of all know something about the size of these crops, and in order to bring them to the best market we must know where the shortage is. It is a common occurrence to have fruits almost given away in one place or in one state, and in ready demand at big prices in another place or state. To gather reliable statistics of the current fruit crops all over the United States is not an easy matter. I would have less confidence in the full success of the undertaking if it were anybody less energetic and less resourceful than our friend F. E. Dawley, the director of New York farmers' institutes, secretary of the New York State Fruit-growers' Association, with headquarters at the Horticultural Building, Pan-American Exposition, Buffalo, N. Y., who is now collecting fruit-crop reports. Every member is asked to make his report about the present conditions of the fruit crops, and if people in other states wish to aid in this good work they should make a similar report and mail it to him. In fact, it will pay fruit-growers all over the country to forward their one dollar to Mr. Dawley, and become members of this great organization, and thus reap all the benefits from the reports of the fruit crop thus gathered. Mr. Dawley asks for estimates, in percentages, of the following crops: Apples, peaches, plums, pears, quinces and grapes, taking one hundred as representing an average crop. For this vicinity I can only give the grape crop as an average or full crop. The apple is almost an entire failure, as were cherries; and pears, a crop that seldom fails in this vicinity, will be scarce and poor. Quinces are another "never failing" crop, but may be badly injured by scab. Plums did set freely, but are ruined by rot. So we shall have very little in the line of tree-fruits to gather and to can. Fortunately, however, we have in some of the small fruits a reserve that is seldom, if ever, failing us. Currants and gooseberries are giving their usual bounteous yields, while the strawberry did even better than in ordinary seasons. If we desire to make sure of a full supply of fruits for canning we should plant currants, gooseberries, raspberries, blackberries and grapes. My Columbus gooseberries are larger this year than ever. The Keepsake, Industry (both red, and the former with a few scattering hairs on the fruit) and the Columbus seem to be about equal in size and productiveness, the foliage also holding out about equally well. They all ripen at the same time. They are good enough to eat out of hand when fully ripe. For quality, however, I prefer the much smaller Downing (American) and a newer yellow sort, and under proper, or say skilful, treatment I find all gooseberry varieties productive. The illustration shows the berry of Keepsake, Industry and Columbus in natural size. I also have the Red Jacket, a medium-sized red berry, which I like because it has more acidity than any of the others. On the heavily loaded—rather overloaded—Columbus, a large number of the berries exposed to the sun were actually cooked and spoiled, which also happened during the excessively hot days in July a year ago. This again suggests the advisability of providing some shade for gooseberry-bushes, or at least the removal of the berries on the exposed branches or exposed sides of branches. Such removal would save this portion of the fruit, relieve the overburdened branches, and give us good material for pies, sauce and canning.

**The German Carp** In my comments on the United States Fisheries exhibit at the Pan-American, in July 15th issue, I expressed feelings of surprise at the absence of the German carp at that show. At a later visit than the one mentioned, however, I found the carp family fully represented. With all its faults it is an interesting fish; yet I would willingly part with it in our home waters. Cayuga Creek is now being kept roily most of the time, and I believe largely so by the carp digging in the mud; and the charge made so often against the English sparrow—namely, that it drives other birds away—seems to be true against the carp in regard to other fish. The creek used to be well stocked with bass, pike, or pickerel, perch, etc. Now the bullhead is about the only fish of value that remains with us, although in lessened numbers.

**Pan-American Attractions** I said once that a big exposition is the stone on which people can sharpen their wits. But there is a class of people who may find this process expensive. To such people I would give the advice to stay away from Buffalo just now. Every exposition brings its fakes and fakers, and a lot of people with a lot of schemes or fanciful articles with which to coax the money out of the pockets of people with more cents than sense. If you are one of those who must buy every article you see that catches your fancy (unless you have a plentiful supply of money); one of those who imagine they can beat the regular sharper at his own game, may this be three-card monte or any other; one of those who do not know either a good thing or a bad thing when they see it; one of those who are tempted to part with the money they sadly need for necessaries, in order to see every fake show, steer clear of Buffalo. But come with a moderate supply of cash, if you have it to spare, and if you have learned to use discretion and to spend money wisely. You will not regret it. Our Midway is choke-full of side-shows; some bad, some medium and some quite good. Many have a decided educational value. If you have fair judgment you can easily find out which it will pay you to see and which are of little account. Bostock's interesting and instructive animal show I have already mentioned. It will pay you well to see "Venice in America," with its bric-a-brac, works of art in marble, its canal, bridge of sighs, rialto, etc. You will find the streets of Mexico interesting, although its bull-fight, as I witnessed it from near the top of the Electric Tower, nearly three hundred feet above, is a tame affair and hardly worth the extra fifty cents admission. You will find quite interesting sights in the beautiful Orient, although the Oriental dances in the theater, with extra admission price, are neither attractive nor esthetic. Fair Japan, with its show of Japanese life and Japanese habits, its tea-houses, etc.; the Indian Congress, with its braves, squaws and papooses, and sham-battles; old Nuremberg, with its German military band and German singers, its castles and towers; the Hawaiian village; the Filipino village, etc.—all are well worth seeing. Then there are the "baby incubators" and various panoramas and scenographs; notably, the Johnstown flood, the battle of Mission Ridge, and Jerusalem, which have educational value.

T. Greiner.

KEEPSAKE RED

COLUMBUS GREEN

INDUSTRY RED

## SALIENT FARM NOTES

**Sweet-corn, Rye, Red Clover and Sorghum** In this immediate locality we are having a first-class drought. Since early in May only two light showers have fallen. Within a few miles on all sides heavy showers have fallen at intervals all the season, and in those localities the farmers are jubilant. Right here pastures look about like they usually do in September, and feed is rather scarce. In a time like this a patch of sweet-corn is the best thing one can have on his farm. The leaves roll up and appear sapless during the day, but when the morning dawns they are straightened out and as full of life as ever, and then is the time to cut it for feed. We often read of the great value of rape and various other forage crops. I have given several of them a fair trial, and in a good season, when pasturage is abundant, they make a heavy growth and furnish lots of forage, but in a dry season like this they are of little value.

So long as we can grow sweet-corn it is a waste of time to attempt to grow these other forage crops. Experience has shown that they make a good growth only when other and far better things do, and when the season is dry they are a complete failure. The very earliest forage crops we can grow are rye and red clover. On rich soil they furnish the largest quantity of very early forage of any plants we have. Rye is first, and before it becomes woody red clover is ready to cut, and will furnish two good mowings. I have seen some very droughty springs, but never one that was dry enough to seriously check the growth of rye or red clover on a rich soil. After clover comes early sweet-corn, and from that time on, if we have planted wisely, we have an abundance of the best of forage. I have found that an acre of sweet-corn will furnish from ten to twenty times more first-class forage than anything else we can grow, taking one season with another. Two varieties should be planted to get the best results, one early and one late. Crosby and Perry's Hybrid are as good as any early varieties grown. They make a quick growth, tassel early, and have good-sized ears. They are ready to begin cutting as soon as the silks show, and get better until the grain is nearly hard. The best late variety is Evergreen. Planted at the same time as the early variety it will be ready for cutting as soon as the other is past its prime. Sorghum is a good crop to finish the season with, as it is at its best when sweet-corn is finished.

Several farmers have written me that they are very short of pasturage and feed this season because of drought, and have asked me to "prescribe" forage crops for them that will not fail in any sort of season. I rather think we have about as variable seasons right here as can be found in any part of the United States. One will be wet enough to drown frogs, and the next dry enough to crack a mummy, and as we don't know which we are going to have we must, in a measure, go it blind until we find out. I have learned that the safest and surest early green forage we can grow is rye; that on good soil red clover is about as safe as rye, and follows it as a forage crop. In a wet season it makes a tremendous growth and will furnish two good mowings. It should then be allowed to go to seed and reseed the ground. If we mow or pasture this last growth we kill the goose that lays the golden egg. If we let it remain the ground is reseeded, and a thick, young growth and a splendid stand is the result. In a droughty season the earliest mown—that cut before or about blossoming-time—may be cut again, but that cut when the blooms are dying or dead should not be cut again unless the season sets in wet and the growth is very large; then we should cut a swath, and leave a strip about three feet wide to reseed the plot.

Early and late sweet-corn, planted as above suggested, follow the clover, with a small patch of sorghum to wind up the season with. These four crops are the most reliable of any I have yet found, and I have tested about all the forage crops that are at all likely to be useful in this locality and this latitude. If one has some good blue-grass pasture, all he needs to grow for forage is the sweet-corn, to provide against drought in August and September. In a dry season blue-grass will fail rapidly in the beginning of July. If one has a lot of sweet-corn to help it out, so that it will not be grazed too close at that time, in will furnish good pasturage when fall rains (if we have any) revive it.

Fred Grundy.


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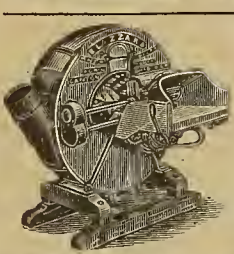
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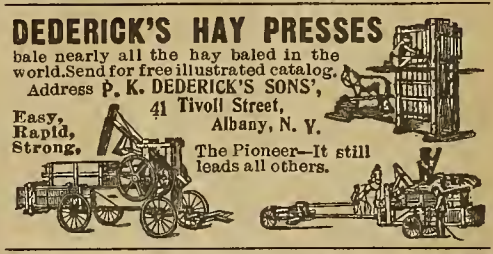
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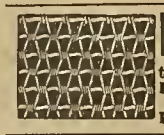
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# OUR FARM

## FARM THEORY AND PRACTICE

The Unfortunate Horse.—The unusual heat this summer impresses me more deeply than ever with the unfortunate lot of most horses. These animals furnish the motive power for farms and country roads, and therefore come into closer and more continuous contact with man than any other class of our domesticated animals. They are under nearly constant subjection by bridle or halter, and are made utterly dependent upon their masters in nearly all respects. As man is a highly civilized creature, this association should not be a bad thing for any animal; but that it is a sorry thing for a vast number of horses no thoughtful man can deny. I do not charge this fact to the unrighteousness of man so much as to his carelessness and inability to realize the cruelty of his treatment. Bad-hearted people do own and mistreat the animals they control, and these we have in mind when the matter of mistreatment comes up; but doubtless far more than half of the total suffering of horses is chargeable to men who are rated as kind-hearted, and whose offense is due to thoughtlessness and ignorance. The dairy-cow, the sheep and the hog are given a large measure of personal liberty, while the horse, from necessity, we make a personal slave; and while it is right that we should do this, there are rights on the part of the horse that in all decency and fairness should be more generally observed.

Water for the Team.—The horse's stomach is small, and while he can take enough water to last him half a day when idle, he cannot take enough water, without injury, to satisfy his need for half a day when he is being subjected to severe labor in very hot weather. The ox can do so; the horse simply cannot. It results that he must suffer greatly from thirst, or injure himself from overdrinking, and usually both, if he is worked continuously these hot days from morning until night, with a drink only at noon. It is wrong to cause such suffering. In cool weather and at moderate work the common practice does very well; in hot weather and at hard work the practice of the few in supplying water at shorter intervals is the only humane one. When water is inconvenient to the place of work it should be taken there just as surely as is water for the driver. The team will suffer less, lose less flesh and do more work, while the master will be a more honest person.

The Harness.—Fine harness is all very well for the one who can afford it, but old and cheap harness may be just as comfortable. In either case it must fit. The horse is most interested in the collar, the bit and the head-stall. The draft comes upon the shoulder. It troubles a humane man to see draft coming against a bruised, galled shoulder. Have a collar and hames that fit, even if it puts you into debt. It will be far better to die owing a storekeeper than to leave the earth owing a faithful horse a decent collar. If the collar grows too long under hard summer work, shorten it with a zinc pad if pad is right shape—not too straight, but fitting top of neck so the collar will not rock. At noon and night in hot weather wash the shoulders thoroughly with cold water after removing the collar. If all the sweat is washed out, and if the collar is kept clean, there is rarely any trouble.

A sweat-pad is undesirable if a well-fitting collar can be secured. It is warm, and it springs the collar out of shape. A hard, smooth leather surface is probably as good as anything for the shoulder. The fitting is best done by soaking the collar and then pounding any place or places that unevenness of the shoulder may demand. The shape of the hames has much to do with the fitting of the collar.

The bridle-bit should be as easy as the disposition of the animal will permit, and if its disposition is bad it usually reflects the temper or ignorance of its trainer. The head-stall should be light and soft, and its length should be exactly right to hold the bit where it will worry the animal as little as possible. The driver who will not pay attention to such details should be compelled to suffer similar personal discomfort until his heart jumps into its right place.

There should be a shade-tree in every field, and in our very hot days the teams should go to it whenever the heat compels a rest. There is little gain from a stop under a broiling sun, the rays of the sun drying the sweat, clogging the pores of the skin and leaving the animal to pant worse than ever. It is a sin to keep a horse at work in extreme heat when perspiration stops, as it will rarely fully recover from such maltreatment. When overheated a rest in the shade may bring the sweat; if it does not it is time to cease working the horse for the day, and give it a bath and a blanket until restored to a normal condition, so that it can throw off the heat while working by sweating. A man who ceased to perspire in extreme heat would soon know that he was ill; the unfortunate horse is a dumb slave, and his only hope is in the conscience of his master.

The Driver.—Yesterday I saw a boy beating a team of horses because it did not pull an overloaded wagon out of a bad place. He abused his team in this way for fully fifteen minutes before unhooking and leaving his load. I happen to know that the chap is a good-hearted boy, but his head was set that he must do with the team in his charge just what he had seen others do, and he had no conception of the way in which his horses looked upon their difficulties. The injustice of the beating irritated them, and they gave the task up, deciding to take the abuse without effort to draw the load when they had no confidence in the judgment of their driver. A boy may be as good a driver as a man, but neither boy nor man should have a chance to exercise power over a servant until he knows how to treat it.

If a horse has been spoiled by man he is not responsible therefor. If he has not been spoiled he is trying to learn just what is expected of him in far greater degree than many drivers imagine. Most unpleasant traits are due to the animal's fear of punishment—a jerk on the line, a cut of the whip or a heathenish yell, that sets all his nerves tingling. Most horses will become tractable as soon as kindness takes away their nervousness. Only those who can put themselves in the horse's place and look at the world from the horse's standpoint are fit to have the control of it, and all others would be saved from much sin if control were taken from them. David.

## ITEMS OF INTEREST FROM MY NOTE-BOOK

One of the doing kind of farmers is worth one dozen of the suggesting sort.

Who ever heard of adulterated fruit? Why not eat more fruit at every meal?

The raisin product of California in 1900 was seventy million pounds.

The total value of the peach crop in the United States is about fifty million dollars annually.

The estimated profit of wheat-growing in Argentina, at current prices, is three dollars and forty-two cents an acre.

Don't fail to read the best agricultural papers. Form your own conclusions, then work them out, since it is the only sure way to make the farm pay.

New England apple orchards seven years from planting out ought to produce two barrels a tree, or eighty barrels to the acre. Fruit-growing there does pay.

The effort of the California fruit-growers to secure a six-day fruit-train service from Sacramento to Chicago, and a nine-day one to New York, has resulted successfully.

The first load of new wheat of the 1901 crop was marketed at Winfield, Kansas, June 24th. Weight, sixty-two pounds to the bushel. Kansas hard red winter wheat is now a formidable rival of the justly celebrated northwestern spring.

The best-bred Vermont Merinos are now sent by way of Puget Sound and thence by steamer to Australia. This route is now regarded as being much superior to that by way of Good Hope.

The right man to lecture before an institute attended by practical farmers is the man who is learned in the science as well as in the work of farming.

Vermont has a good law relating to the sale of garden-seeds. "Every package of seed offered for sale in the state shall have the year in which they were grown plainly printed thereon."

If farmers as a class expect to prosper and enjoy the fruits of their industry they must organize for mutual protection, just as all those who are engaged in minor occupations are doing.

With the advent of the rural free-delivery system it is to be hoped that no farmer on the route will delay answering all strictly business letters within twenty-four hours. The habit of promptly replying to letters of inquiry is daily becoming more necessary.

The vicinity of Florin, in the county of Sacramento, California, is the chief berry district on the Pacific coast. This year one hundred and twelve thousand crates of strawberries were shipped from Florin. It is estimated that next year's crop will not be less than one hundred and seventy-five thousand crates.

The success of the Angora-goat industry depends upon the intrinsic value of the fleece. The skin of the Angora is too tender to meet the requirements of tanners. The skin of the common goat is more suitable for manufacturing purposes.

An extensive factory is being erected at Essexville, Michigan, for the purpose of extracting commercial alcohol and potash from refuse beet-sugar molasses. From a chemical standpoint the utilization of what have heretofore been waste products constitutes an advance in the right direction.

The American farmer should now begin making a strenuous endeavor to get into the ark of progress by dealing justly with the consumer. Quality and good condition of farm products are what the consumer of first-class products is looking for. He is too frequently disappointed, and too often finds ample occasion for making uncomplimentary remarks that are only intended for the producer of the supposedly honestly-put-up farm products. W. M. K.

## WHAT THE FARMER CAN AFFORD TO DO

Very frequently this is the question which interests the farmer: "Can I afford to do this?" It may be the purchase of a new farm implement; it may be the construction of some building, or it may be the investment of money in any one of the hundred and one ways which arise on the farm that calls forth this query, and its settlement is a matter of no small degree of consequence to him whose mind is striving to reach the best possible answer to it.

It is a somewhat dangerous thing for one man to attempt to say how another shall solve this vexed question. So many and so varying are the circumstances surrounding each individual that what would be best for one farmer might not be the right thing at all for another. For that reason he who would advise on the multitudinous problems which are arising from time to time on the farm must be very careful indeed. But there are some things one may suggest which will not in the least embarrass the man who reads in his desire to know what may be best for him.

It seems to me the farmer can afford to have a comfortable home. Comfort and extravagance are terms widely divergent. The man who is not wealthy may yet possess everything worth while to make himself and his family comfortable. Only the rich can be extravagant. The sooner we learn this the better. Thousands of farmers are keeping themselves poor trying to keep pace with the wealthy. Very unsatisfactory is it to have a house full of luxuries and know that they have been purchased at the expense of peace of mind. But a good house, warm clothing, barns which keep all within it comfortable and bright, cheery prospects all around, every farmer certainly can afford.

Again, none of us can afford to bring our boys and girls up in idleness. Idleness on the farm? Yes. We all know of farms on which the boys and girls are not expected to do anything unless they "feel like it." It is too much for them to lend a helping hand to father or mother when they are so inclined. They have no regular duties. Life for them has nothing of responsibility. They have no earnestness of purpose, and by and by they will start out in the world for themselves wholly unprepared to meet its demands. Failure can only follow. Every farmer boy and girl ought to have a fairly good education. The boy should know all about preparing the soil for the various crops, and understand the proper use of tools connected with their sowing and harvesting. He should be able to do anything bearing upon the internal economy of the household. No farmer can afford to send his children out into life in these days of sharp competition without just this kind of preparation. If he does he is in a great measure responsible for the failures which may overtake them. He may not be able to send his boys and girls away to college or to give them in the fullest sense a finished education, but within the reach of every young man or woman of the present day is the opportunity to gain a knowledge of all subjects sufficient to enable him to go through the world holding his head up with the best man of his acquaintance.

It may seem almost unnecessary at the present time to speak in this way, and yet I know of many and many a boy who is growing up unable to do more than write his own name and read after a manner, wholly unacquainted with all the rules of business. It has been my fortune to come into contact with many men in a business way, and I have often been pained to hear men say, "You had better write my name there and let me sign my mark. I can't see very well, and have left my spectacles at home." I knew well enough that this was only a pretty fiction to cover up the fact that they could not use the pen well enough to sign their names to the paper before them.

Once more, the farmer can afford to keep up with the best thought of his time. What a chorus will go up when men read that sentence! "You do not know how busy I am. Every moment of my time is taken up with my farm-work. I have no idle hours to spend with books and papers. If you are fortunate enough to be able to sit in the house and read, I am glad of it. I envy you, however." And so the objections rise. Well, I do not believe there is a man in all this world who is busier than he who pens these words. For him there are no idle hours from year's end to year's end; and yet it is his pride that not less than thirty papers find their way regularly to his table. Some of these are purely agricultural, some for the good wife, some for the children, some for us all. Not every word in all these papers is read, but each is studied for the thought or the fact which may be made use of. No day is so short or so crowded with work that the man who so determines cannot find a few moments to learn how the world stands in its relation to him at that particular time. He who does not do this is waging an unequal battle, and one in which his success can but be unsatisfactory.

Then, too, the farmer must find time to shake off care and breathe the breath of life in other fields than those of his own every-day environments. He is a narrow man who does not look up from his hoeing, his plowing and his gathering into barns long enough to find out, by means of personal contact, what his fellow is doing. Perhaps in nothing else does the farmer more neglect his own best good than in the matter of rest.

As for the question of farm tools, buildings, stock and farm equipments generally, those things must, from their very nature, be left to the individual. But far too often I think we are not as liberal with ourselves in these things as the highest success would dictate. The time has come when we must be able to do our work promptly and in the best possible manner. If we do not we shall soon find ourselves far in the rear of the procession. This does not mean that any one should bankrupt himself or starve his family or himself for the sake of purchasing tools. By no means. There is reason in all things. It is worth while for every man to ask himself whether the money he has earned by the hardest kind of work might not better be invested in something which shall make his work a little easier or the home-life more attractive to the wife and young folks, than to be hidden away in the bank to be the source of future trouble.

But in all these matters we ought to remember that it is above all worth while for the farmer to do everything possible to bring out the very best that is in him. This is the truest and best object in living.

Edgar L. Vincent.

## FORM OF SILO

The consensus of opinion of those who have studied the silo problem indicate that the circular form is preferable. There are, however, many square and rectangular silos in successful operation; especially is this the case with those having rounded corners. For the average dairyman and farmer in this state the stave circular silo will prove entirely satisfactory. Where great strength and large capacity are demanded the frame circular silo will best meet the requirements. This form of silo can be made quite durable by plastering the inside with cement. The pit silo in some localities can be used to advantage, and its merits are worth the consideration of agriculturists located in semi-arid districts where lumber and other material are usually expensive. These excavations, when practicable, should be made in sloping ground, with a trench dug for an approach, as well as serving the purpose of an opening for a continuous door. The walls of these pits could, perhaps, be cemented, so as to keep them intact. When constructed after this method such silos should prove to be very durable. The circular stave silo, owing to its simplicity and economical construction, seems to fully meet the requirements of the farmer. With this form of silo properly erected the waste of silage is reduced to the minimum. There are no corners or bulging of walls to permit air to enter deeply into the silage.—From Bulletin of Oregon Experiment Station.

## THE MISSION OF THE AGRICULTURAL COLLEGE

[CONTINUED FROM PAGE 1]

lounge and dawdle, but to think with an active mind and a definite purpose. Every college president worth his salt in an agricultural college ought to have his study so arranged that he could lock his door to all comers for an hour every day, and then turn his back to desk and books and look out over the farms where the men he represents spend long days in ill-rewarded toil. He should have leisure to look for hours together, so that he might dream of the better future which the agricultural college is to make for the sons of the farm. The dreams of men of power and purpose become plans to be worked into the life of the people. We need the dreamers as well as the plodders. Especially do we need the dreamers who have the purpose and opportunity and the power to transform the thoughts of the study into the controlling acts of life.

The agricultural colleges have not found their field, but many of them are finding it. Most of them have been looking too high; they have been forgetful of the fact that agriculture deals with the earth and the earthly, as well as with the sunshine and the rain that come from above. They have been proud, and at the same time ashamed, unconscious of the great fact that the best title to honor is genuine service where service is most needed. Within their own walls they have hindrances. There are professors in agricultural colleges—and presidents not a few, I fear—who cannot meet a farmer as a man; top-lofty pedants they are, who have little but contempt for the parents of their students. "Pride goeth before a fall," but humility bringeth the knowledge that is power—power to feel and to see and to do.

An agricultural college ought to be near the ground, near the people it is intended to serve. Its mission being to the "industrial classes," it ought to work for them. Its teachers ought to be more than mere teachers; they ought to be believers in the classes to whom they are called to minister. They need not lack wide outlook, thorough scholarship and genuine culture to be in real sympathy with the world's workers. If they have a contempt for the farmer and the mechanic they cannot be genuinely successful teachers of the sons of the farmers and mechanics; they cannot be enthusiastic instructors in the "branches of learning related to agriculture and the mechanic arts." The young man who discovers that his parents are only tolerated when they visit him at the agricultural college will soon learn to be ashamed of them and their calling, or he will despise his teachers.

Men of breadth and depth and insight—men able to see what is before them, and possessed of the strength and skill and will to work—are fortunate when they are set to work without copy or directions. Your man of talent and training is happily placed when he is given a task to perform in the traditional way; but the new problems demand more than talent and training, more than mere power to follow instructions and perform set tasks. They call for a large measure of the soldier's courage, the prophet's fire and insight, and the born administrator's gift to manage men and material forces.

Let it be remembered that agricultural education is in the experimental stage. It has its empirics of all grades. No man and no college can confidently and intelligently predict what the future will bring forth. Plans admirably adapted to a certain class of students—the graduates of the high schools, for example—may utterly fail with the unclassified and unclassifiable body of students that seek admission to the agricultural colleges. Big men with big heads and big hearts can train these lusty youngsters from the farms and shops and fit them to master all conditions and succeed wherever honorable success is possible; but little men who insist on taking them in through a sieve of regulation mesh and shaking them out through another will miserably fail. The old doctrine of the importance of the individual must be revived. The man is more than the method. Let systems crack, but make men!

I have long had a lively interest in the agricultural college and the people to whom it is sent. It is my college, and they are my people, so I may be pardoned for speaking earnestly. They to whom the agricultural college appeals and for whom it was founded need the inspiration and the uplift which it ought to give and must give, for there is no other efficient agency working in their behalf. The church is concentrating its machinery in the cities and towns. The schools in the centers of population are drawing the best teachers from the country. The state and county superintendents of education are giving their time and thought largely to the town and city schools. So there is a large opportunity for the agricultural college. There is a measureless hunger for the inspiration it ought to give. God pity the country if the agricultural college cannot, or will not, help it as it should!

D. W. WORKING.

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WHAT'S life in a city? There's no room to spare.
Men are crowded in corners and scanted of air;
Too near to the neighbors, too fretful for friends,
Each man jostles each as he seeks his own ends.
There are folk underneath you, and folk overhead,
And the noise of the street comes to vex you in bed;
The jangle of car-bells, the cab whistle shrill,
All the hum and the whir and the dust of the mill
That is grinding all day and grows louder at night,
Conspire against comfort and banish delight.
Ah, God, for the country—the singing of birds,
The laughter of children, the lowing of herds,
Green grass and blue heavens, bright water, clean air,
And room enough, room enough, room and to spare!

—The Outlook.

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## CORRESPONDENCE

FROM ARKANSAS.—The year 1874 is known here as the year of the hot winds. The year 1880 is known as the drought year. But neither of them will compare with this year. Our wheat was good, but I can't say as much for anything else. Many farmers have the blues and are trying to sell out. In my opinion there was never a better time than now to buy.

S. B.

Kings Mills, Ark.

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FROM MARYLAND.—Prince George County is just outside of the District of Columbia, and Marlboro is the county-seat. The staple crops are tobacco, wheat and corn; but oats, rye, potatoes and hay are plentifully raised. Vegetables are extensively cultivated, and peaches, pears, apples, grapes, strawberries and melons find a ready market in the capital, as well as the dairy products. Cattle-raising promises to be a profitable industry, as the Washington Butchers' Association is preparing to erect an abattoir on the outskirts of the city. Tobacco looks well; the peach crop is a success, but apples are falling rapidly. The wheat crop is the largest in years gathered in this county.

G. H. C. W.

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FROM ARKANSAS.—I have read, with great interest, everything that appears on the hired-man question. I want to give you our experience and ask a few questions. My husband is unable to work, and has to depend entirely on hired help. We treat our hands well—like company. We give them the best we have to eat, a good room, a good bed, a clean lamp full of oil, plenty of books and papers, and horses to ride whenever they want them. They never have to carry a bucket of water or milk a cow. They go out a great deal at night, and of course feel sleepy and cross the next day. They seldom get up until breakfast is ready, very often not until we have eaten and milked. When my husband hires a man he has it distinctly understood that he must not abuse the stock. They usually do well for a couple of months, then get lazy and abusive. Whenever he tells them not to fight the mules and horses, or shows them how to do anything as politely and kindly as he can, the hired men swear at him, and tell him they are free men and will do as they please. Is this right? Do we have to keep a man and pay him good wages for such treatment?

Kings Mills, Ark. MRS. L. E. S.

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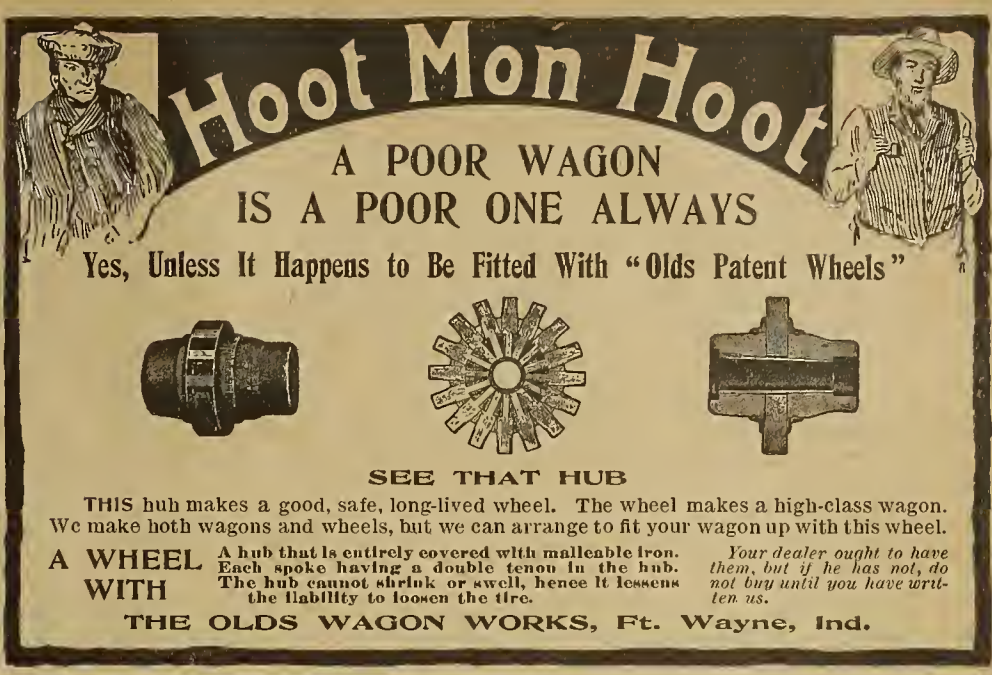
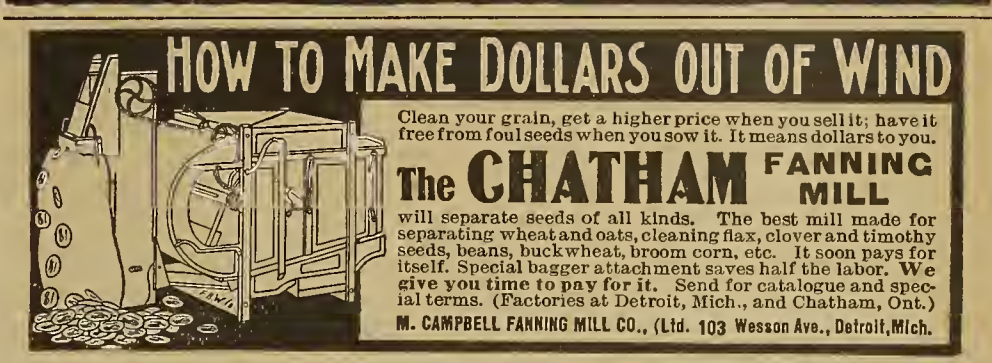
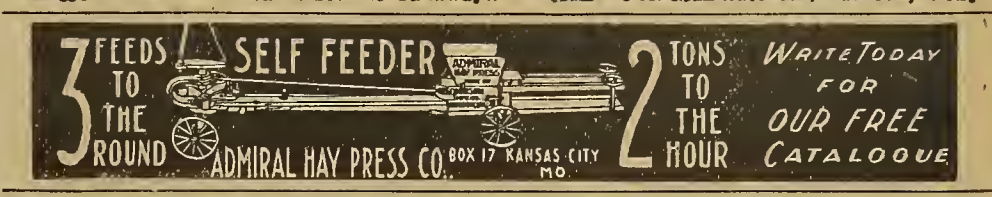
FROM OKLAHOMA.—The uplands of the Cheyenne and Arapaho Indian reservation, which constitute what is known as Washita and Custer Counties, are good farming lands. I have traveled some in my time, and I have never seen a country that would compare with this country in the matter of the soil holding moisture during a dry time. If the land is properly cultivated there is no necessity of a crop failure. To raise a good corn crop it is best to give the land a good stirring in the early winter with a four-horse disk, and in the month of February have the land listed with a good lister. Let the lister down deep. When time comes for corn-planting go into the field that has been properly disked and listed, throw open the ridges made in February, and as soon as corn is up go on to it with a good machine cultivator for little corn, then follow up with three or four good cultivations, and the crop is assured. I have not had a single crop failure since I came to western Oklahoma, and that was in 1892. Talk of this not being a farming country has been exploded too long to receive any attention now. It is a good country. Apples, peaches, apricots, pears, plums and cherries do well if they receive proper cultivation. We have a light crop of fruit some years. What country does not? Any one who will go on one hundred and sixty acres of land in Oklahoma, and will be willing to put forth an effort, will in a few years have a home worth thousands. I heard the cry in early days in the Cheyenne and Arapaho country that it was fit only for cattle, but to-day men have homes on uplands and in river valleys that are worth many thousands of dollars each. Schools, churches and railroads have come, the large herds of cattle have gone, and in their stead farmers with little bunches of cattle have filled the land.

R. P. P.

Arapaho, Okla.

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## Notes From Garden and Field

SUMMER LETTUCES.—Our seedsmen offer us an almost endless list of lettuce varieties to select from. Every seedsman has his own offerings, and altogether I believe there is as much confusion in regard to true names of lettuce varieties as about those of any other vegetable. And yet there are marked differences between the different kinds, and many of them so characteristic that the variety can hardly be mistaken. Some of the lettuces are curly and heading up loosely, like the older Boston Curled and the newer Grand Rapids (the latter probably the best and most reliable forcing variety for home purposes); others are plain-leaved and remarkably hard-heading, like the new Summerland; some are plain green, some a golden yellow, some marked with red, some almost brown, etc. The terrific heat of the middle of July has been hard on all our lettuces, as they do best in cool, moist weather. But there are few varieties which seem to stand the heat much better than others, and among these I find as some of the best three new sorts—Summerland, already mentioned; New Golden Gate, of dark color, only medium size, but close-heading, and a yet nameless sort sent out by Maule, of Philadelphia, for trial. This is one of the largest of all lettuces I have ever grown, rather plain-leaved, forming a compact head, and apparently showing but little inclination to go to seed even in these hot days. A prize was offered for the best description of it. I am not informed what name is intended for it. The New York, Morse and some others are good summer lettuces, but in my experience they run up to seed a number of days earlier than the new sorts mentioned. Just at this writing it is about useless to sow small seeds in our average soils, as the latter are too dry to furnish the moisture needed for sprouting such seeds placed near the surface. But if I have a somewhat moist and possibly partly shaded spot of rich soil somewhere I will sow a little bit more of one or the other of these summer lettuces in order to have a chance for getting a supply of fresh lettuce before winter comes.

For greenhouse forcing in early fall I have to start some plants at once, but for this purpose I want the regular forcing varieties. As mentioned before, Grand Rapids is undoubtedly the easiest and most reliable of all varieties to grow under glass, and it is a most excellent kind for house use. One of its greatest advantages is its comparative freedom from disease, especially mildew. By the time that this gets into print I shall be nearly ready to sow seed of this lettuce, of course, in open ground and with the idea of setting the plants in the newly prepared soil of the greenhouse bench. It will give me good lettuce just at or after the close of the outdoor season.

LATE PLANTING.—A good deal of the late planting that I usually do at this season of the year, and that I would like to do, will probably be left undone this year unless rains set in before long. And I shall miss it, too. I like to have a little spinach in the fall, and, of course, some late radishes and winter radish and some nice, crisp turnips. For turnips, if I select the quick-growing flat varieties, such as Purple-Top Strap-Leaved, early August may not be too late, and if I have no other spot where to plant them I may simply scatter a little seed among the growing corn, especially of early varieties planted on rich soil. If the roots do not grow very large they will be fresh and tender, and if there is a surplus I will have use for it for hogs, cattle or sheep. There is nothing lost by having the turnips grow in such places, and seed is cheap. Besides, it will be good covering for the land. Winter radishes may be planted even in August, and kale for greens, or to winter over for spring greens, will also have a chance if started from seed at once.

THE STRAWBERRY-PATCH.—The easiest and surest way of growing good strawberries right along is by having a new patch come on every year. But if we have a choice bed already in fruiting, and no spot conveniently available for a new plantation, the old one may be made to do for another year. And that is what I am trying to do with mine. The first step if we wish to succeed, however, is to keep that bed scrupulously free from weeds. When once overrun with all sorts of pestiferous weeds, especially the creeping things—creeping clovers or other creeping grasses—the patch is past redemption. Of all varieties I had this year the Brandywine has given me the greatest satisfaction. It is a few days later than some other sorts, but the berries are very large, quite good and firm, and hold out well to the end of the strawberry season. It is true, however, that we have berries of higher flavor than the Brandywine. The much-advertised Rough Rider has, to some extent, been a disappointment to me. It has fairly good foliage, and makes just about runners enough. Its blooming season is quite late, so that it is more liable than most sorts to be out of the reach of a late frost. But it did not prove as productive as I expected, giving little, if anything, more than one half the yield of the Brandywine and of some others, and only a few berries after the Brandywines were exhausted, while the berry itself is decidedly insipid. I shall not try to increase my patch of this variety. I still want the Wilson—chiefly for canning. With all its acidity it has the true strawberry flavor.

My strawberry-patch was kept free from weeds until after the fruiting season. Since then some big weeds have sprung up, also some purslane between the rows. I care very little for the latter weed, which is so troublesome among our closely planted garden crops. It will not get a foothold in the old strawberry rows, while it can easily be cleaned out from between the rows by my usual treatment of the old patch. This consists of plowing a shallow furrow away from each side of each row with a one-horse plow; then after a few days, when the weeds and strawberry-plants that were plowed up have all dried up, leveling the ground between the rows again with the cultivator. Usually I first cut all tall weeds all over the patch with a scythe or mower, and, of course, with them some of the tops of tall strawberry-plants. This doesn't hurt the latter, and in case of their being infested with blight or leaf-rollers, etc., I can apply the best remedy known—that of setting fire to the patch as soon as the cut tops and weeds have become thoroughly dry. T. GREINER.

### THE MANGO (MANGIFERA INDICA)

Since the achievements of the United States during the closing days of the nineteenth century, which brought us into closer relationship with Cuba, Porto Rico, Hawaii and the Philippines, a subject which has called for the attention of the people in this country is that of the fruits grown in those tropical climes.

The Division of Pomology of the Department of Agriculture has this subject well in hand, and a visit there the other day would have lead one to have believed that he was interrupting a banquet of some sort.

"No," said Mr. W. A. Taylor, the assistant pomologist, "this is not a feast, but merely

THE MANGO

our routine work—examining, sorting, classifying, and giving our views of the edibility, flavor and general worth as a market fruit. This is by no means our sole labor. The old scriptural saying 'By its fruits ye shall know them' might well apply to us, for we have made ourselves acquainted with the general public by many excellent fruits now the result of our work of budding, propagating and hybridizing.

"As regards our line of work in relation to tropical fruits of course there is some limit, although since our coming into the possession of the pearl of the East Indies there is spread before us a wide field of action. Many of the tropical fruits are luxuries, and since they are such, our neighbor will often buy them simply because the person living next door can ill afford to. This is the case with many of the more expensive tropical fruits. Right here I might mention an experiment which we have been conducting for the last decade with a fruit which is indeed delicious, wholesome and pleasant. I refer to the mango. Of course, many might take exception to my statement, because to the novice the long, tough fibers clinging to the seed and which adhere to the flesh are decidedly unpleasant. These fibers are still more disagreeable on account of the flavor of turpentine which they impart.

"About ten years ago the Department imported from India a variety of mango which was much larger than the seedling so commonly found, and lacked the disagreeable turpentine taint. We have labored patiently with this new species, and during the severe winter of 1895 we were almost thwarted in our efforts to give the public what we had believed would be a most agreeable dessert fruit. However, since that time our efforts have not been in vain, and this mango is now beginning to fruit in Florida. This new mango, so often called the 'peach of the tropics,' is misnamed. The juice is rich, syrupy, and we have nothing like it in any of the peaches. Its fruit is abundant, being thicker than in the common mango, while the flavor is most agreeable and pleasing.

"Last of all, we have completely obliterated the most disagreeable point of the plain mango, and that is the long, stringy fibers which give the flavor of turpentine. Of course, we have not been able to ship hundreds of car-loads of these mangos, but our efforts have been successful, and by following out our plans Florida and California horticulturists may grow them successfully. This new mango is absolutely an excellent fruit, and after becoming known to the people of the United States, as will many other tropical fruits, it will be found to be worthy of purchase, not because our neighbor cannot afford to, but because of its worth."

GUY E. MITCHELL.

## Orchard and Small Fruits

CONDUCTED BY SAMUEL B. GREEN

### INQUIRIES ANSWERED

**Osage Orange.**—E. N., S. D. The Osage orange will not spread from the roots. It is a vigorous grower, however, and requires considerable pruning to keep it in shape. It is practically of no value in South Dakota for the reason that it is too tender, and will probably kill to the snow-line every winter. In central Iowa and Kansas it has been used as a hedge-plant, and is perhaps as satisfactory as any I know of for turning cattle; but since the introduction of cheap barbed wire and so many good kinds of wire fencing there has been a general disposition to do away with hedge fences, as they take up a large amount of room, require considerable labor to keep them in good shape, and if neglected they soon become unsightly and a breeding-place for weeds and insects.

**Introducing Novelties.**—T. D. N., Cynthiana, Ky., writes: "I have what I think is a novelty in raspberries. It is a fine, large berry, with all the good qualities of the black kind, and it is a beautiful golden color. Would there be a chance to sell such a variety to some seedman or nurseryman? At what price should I expect to dispose of it, and how should I find a buyer?"

REPLY:—There are many ways of introducing novelties in fruits into cultivation. If one is in the nursery business it is quite an easy matter to advertise it in one's catalogue or get out special circulars, which should embody the results of tests made by experiment stations and prominent pomologists. Since you are not in the nursery business it seems to me that the best way for you to get something out of it would be to send it, under restrictions, to a few of the best experiment stations, and meantime propagate a large stock of it yourself. It will take at least three or four years for these experiment stations to test it properly, and it seems to me that it would not be desirable to try to dispose of it before you have recommendations from them. I would be very careful in distributing it, however, not to send plants to persons unscrupulous enough to propagate it themselves, or allow it to pass out of their hands to persons who would be liable to propagate it, as in this way you might lose control of it altogether. Of course, it is possible for you to interest some of your Kentucky nurserymen in it, and they might see enough of value in it to buy it from you at once; but berries behave so differently in different locations that it would be much more valuable after it had proved itself adapted to a wide area than before having been tried. I should say that the golden color of the berry is against it, as yellow berries never sell as well in the market as red ones. It is impossible for me to put a price on your berry; a thing is worth all you can get for it in the open market. Sometimes novelties are sold in such a way that the introducer gets a percentage on the number sold.


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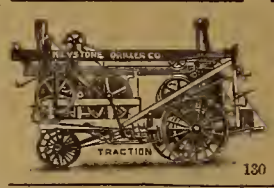

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# THE POULTRY YARD

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## MARKETING INFERIOR BIRDS

ABSOLUTELY poor birds should never be sent to a city market with the expectation of realizing anything from them. Six bad specimens of poultry in a box of a hundred good ones will ruin the sale of them as first-class birds. Better send them "to pot" at home or destroy them than to send them to market. No farmer would mix with his corn a quantity of nubbins gathered from the patch, yet such a course would be quite as sensible as to put with a hundred young fowls half a dozen of their veteran ancestors. One of the principal things that stands in the way of farmers realizing a good price for their poultry is the wrong time it is sent to market. As a rule the poorest time to sell poultry in a great city is the period of the winter holidays, say from a week before Thanksgiving until a week after Christmas. The market is then supplied with choice game, while every butcher's stall is hung with the most tempting cuts of stall-fed beef. Some extra poultry will then sell at fancy prices, but there is really no demand for the great quantity of ordinary birds that come in every day, both in cars and in farmers' wagons. They are disposed of to the poorer class of customers at prices considerably lower than is obtained for ordinary beef. The same rule applies to all seasons.

## CROP-BOUND FOWLS

Fowls in summer are liable to bowel disease, and also to become crop-bound. It is largely due to their picking up all sorts of coarse materials and getting this clogged with the food. Chickens and young turkeys frequently eat substances that clog the passage leading from the crop to the gizzard. The result is that the birds starve with full crops, continuing to drink most immoderately. Medicine is of but little avail. For crop-bound the real remedy is to make an incision in the crop, first drawing the outer skin aside, removing the contents, and probing for the obstruction in the passage. Then sew up the skin with silk, tying the end of each stitch together. Draw the outer skin aside, so that the incision made in it will not be exactly over that of the inner skin. Feed on stale bread dipped in milk. Inexperienced persons should not attempt the operation if some one can be found who understands how to perform the work.

## PULLETS AND OLD HENS

With some poultrymen it is the invariable rule to keep the pullets only one year. Feeding will do a great deal—surprising work, indeed—in the production of eggs, but not always when old hens are concerned; they may put on fat, but they will not then lay many eggs. Their work is over, and nothing remains to be done with them but to market them, and the sooner that is done the better. Of course, there are some old favorites whose lives can be spared as long as they give good results; and with judicious mating, by which we mean the advantage of a comparatively youthful cockerel, may be the means of even exhibition-poultry making their appearance from the eggs of the good old hen. Here is the exception to the rule insisted upon. Some old hens will prove profitable for several years, and in suggesting pullets only those hatched early will prove superior to hens.

## ROOT CROPS FOR POULTRY

A mess of potatoes, carrots or cabbage chopped fine should be given frequently to fowls, both young and old, for scarcely anything else conduces as much to their general healthfulness. All through the year vegetables are relished. Chop the vegetables fine and mix them with scalded or moistened corn-meal, or feed them raw or cooked, without grain. The fowls highly relish such a meal, and soon clean up every scrap. While such foods materially assist in maintaining the general healthfulness of fowls by the prevention of all sorts of disorders, they also supply the needed green or vegetable food with which the birds must be supplied when confined, for which reason turnips should be grown for poultry for winter use.

## BARN CELLARS

The cellar of a barn may be used for winter quarters if it is light and dry; in fact, no better place for winter could be selected if the fowls are well cared for. In summer the cellar may be too far away from the range. It is also well to arrange a portion of the barn above the cellar, if convenient; but there should be plenty of light, as fowls object to dark locations. One point to observe is that many would use barns and cellars but for fear of lice. Keep the places free from lice and there is no reason why the fowls should not be located in a portion of the barn. But unless one is willing to keep the quarters clean, no greater nuisance can exist than that of allowing poultry to be with larger stock. Troughs must not be selected as nesting-places, and fowls should not roost on the partitions of the stalls. When they begin to use the entire barn it is time to clear them out to some other location.

## HOW TO BURN SULPHUR

Sulphur is an excellent disinfectant when burned in the poultry-house; but as sulphur melts and smothers the flame it is difficult to burn it satisfactorily. One way to do so is to dissolve one half pint of pine-tar and one half pint of turpentine in one half gallon of kerosene in an open vessel. Soak in this solution large corn-cobs until they are well saturated. Then take them from the solution and dust on them all of the powdered sulphur that will stick to them. Use nails or pieces of wire, and insert the pointed ends into the large ends of the cob and then stick them on the floor. Remove all the combustible matter from the poultry-house, permitting the fumes to enter every crack and crevice, all over the surface, and the lice will be destroyed. This should be done once a month in warm weather.

## CRIMSON CLOVER FOR POULTRY

Crimson clover should be seeded in as soon as the late summer rains begin, say about the first of August. It is not a spring and summer plant, but is like rye, and it comes out early in the spring as soon as rye. It will make fair headway before winter, and fowls may be turned out on it if the ground is not covered with snow, but it cannot be grown so as to be cut in the fall. It starts out in the spring, however, very early, and is well under way in growth before the earliest grass begins, which makes it a valuable plant for the use of poultrymen not only in spring, but during the winter.

## INQUIRIES ANSWERED

**Clover.**—J. L., Athens, Pa., writes: "Which variety of clover would you recommend to sow on a plot intended for fowls?"

REPLY:—Probably white clover would be the most suitable for that purpose.

**Leghorns.**—E. R. S., Beverly, N. J., writes: "I have some Brown Leghorns hatched June 5th. Will they begin to lay before winter?"

REPLY:—Leghorns sometimes begin to lay when five months old. If well cared for, and the winter is mild, it is possible that they will begin to lay in November or December.

**Discarding Grains.**—S. P. S., Elgin, Ill., writes: "If grain is omitted in summer, as you suggest, what foods would you recommend?"

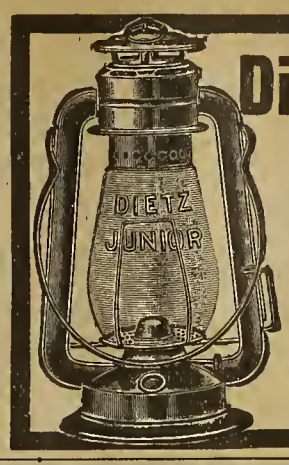
REPLY:—Much depends upon the abundance of grass and insects. If at large the fowls can secure the larger share of their food in summer. A mess of lean meat one day, and bran moistened with milk the next, should suffice.

**Cholera.**—W. C., Victor, W. Va., writes: "Please give me a cure for chicken-cholera, as I have lost a large number of chicks."

REPLY:—Symptoms should have been given, as indigestion or roup is often mistaken for cholera. Cholera seldom lasts but a few days. Indigestion kills the birds gradually. There is no sure cure for cholera. For indigestion omit all grain from the food, and feed one ounce of lean meat once a day—no other food. Look for the large body lice.

**Incubator Not Hatching.**—A. C. S., Zanesville, Ohio, writes: "Two weeks after starting an incubator one egg hatched, the others not hatching before the twenty-first day. Can you assign a cause for this?"

REPLY:—The egg that hatched had probably been under a hen a week, as but little warmth was required during very warm weather. No egg will hatch in fourteen days, hence the egg must have been subjected to warmth before it was placed in the incubator.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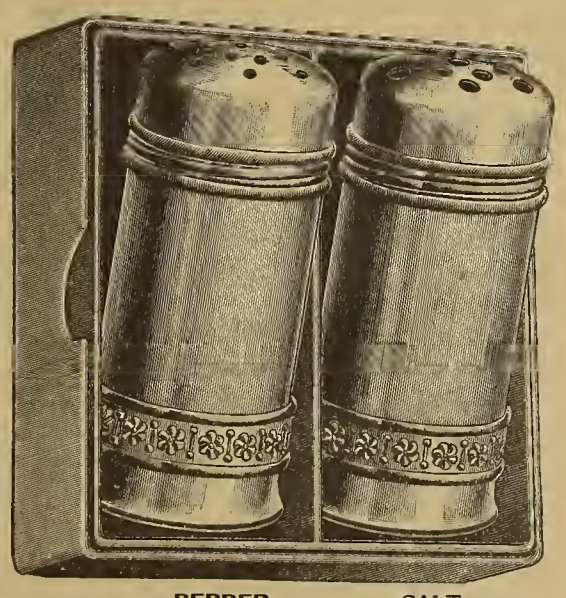

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# QUERIES

READ THIS NOTICE

Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

**Fly-repeller.**—L. B., Somerset Center, Mich. The fly mixture you inquire about is made of two pints of a cheap grade of oil of tar, one pint of kerosene and one tablespoonful of crude carbolic acid. It is sprayed over the cows with any good sprayer once a day or once in two days.

**Melon Enemy.**—B. H. S., Tiffany, Wis., writes: "If the correspondent who sent an inquiry in regard to a 'melon enemy' will take one quart of lime to six quarts of water, and pour the mixture on his plants, he will find that it will kill the worms. A strong decoction of tobacco is also good."

**To Kill Wireworms.**—P. W., Birmingham, Ohio. The most effective remedies for wireworms are deep, thorough fall plowing and rotation of crops. "The wireworm winters over in a nearly adult stage within an earthen cell which was made for the protection of the pupa." Breaking the cells by fall plowing will cause death to the wireworms.

**Angora Goats.**—G. C. B., Cumberland, Md., desires information about Angora goats. The Department of Agriculture, Washington, D. C., will, on application, send a bulletin on raising goats. An excellent department on Angoras appears weekly in "The American Sheep-Breeder," Chicago, Ill., and the same journal offers books on the subject. "The American Angora," Kansas City, Mo., is a new monthly devoted to the interests of the Angora-goat industry in America.

**Sauces.**—A. B. S., Salt Lake City, Utah. The receipt for Worcestershire sauce is quite complicated, and you cannot readily obtain the ingredients. You can make good tomato sauce as follows: One gallon of bruised tomatoes and one half pound of salt; in three days press out the juice; to each quart add two ounces of shallots and one dram of black pepper; boil for thirty minutes, strain, add one fourth of an ounce each of mace, allspice, ginger and nutmeg, and one dram of coriander-seed; simmer gently for fifteen minutes, strain, cool and bottle.

**Wild Morning-glory.**—M. D. H., Berryessa, Cal., writes: "Is there any kind of grass one can sow in a lawn that will choke out wild morning-glory? If not, do you know anything a person can put on the ground to kill it out?"

REPLY:—If you mean the wild morning-glory called "man of the earth," the roots can be killed by applications of coal-oil. Sow the grass best adapted to your locality for a lawn grass, enrich the soil, and mow frequently. Cut off the morning-glory vines just under the surface and apply a little coal-oil to the top of the root.

**Mulching Dry Soil.**—K. P., Forsyth, Mont., writes: "Our soil is a clay soil, with a subsoil of gravel and black or blue mud. It used to get hard and bake when dry, and we raised very nice vegetables on it. Now it is dusty, does not retain moisture, being more like a bed of ashes, and will not grow anything. It has been in garden for ten years. Do you think the mulch out of an old open cow-corral or out of a sheep-pen would be good for the ground? Which would be better, or would either do any good?"

REPLY:—It will certainly be worth your while to make the experiment of applying to your garden soil a mulch from your cow-corrals and sheep-pens. You will add humus and fertility to the soil. The humus added to the clay will aid in retaining moisture. You can determine the point by experimenting in a small way at first.

**Feeding Wheat in Place of Corn.**—G. A., Lebanon, Mo. Wheat and corn fed in the form of meal are practically of equal value for feeding. A recent bulletin of the Kansas Experiment Station, giving results of feeding wheat in place of corn, says: "In feeding wheat satisfactorily a number of considerations must be kept in view. The kernels being much smaller than those of corn, there is much more danger of their escaping mastication and passing out undigested. Many farmers who regard it as unprofitable to feed wheat whole found on crushing or grinding it that all difficulty disappeared. It is especially necessary when fed to steers or milk-cows. In animals with smaller mouths there is less waste than with cattle, and some have observed a positive advantage with sheep in feeding it whole. This was due, however, to the greater consumption of whole grain than ground. Ground wheat has an important disadvantage in feeding, in that it is apt to form a gummy mass, which adheres to the teeth, making it difficult and disagreeable to handle by the animal. This fault has been the source of some of the poor results in feeding it, and is best obviated by feeding it mixed with some other grain, as corn, oats or Kafir-corn. Animals fed upon a mixture are also less liable to become cloyed than when fed on wheat alone. In brief, the nutritive value of wheat, as shown by its composition, is greater than that of corn: it can be best utilized by feeding it ground or crushed, and mixed to a certain extent with oats, corn or Kafir-corn; it may be fed advantageously to horses, cattle, hogs, sheep or poultry."

**Cement Reservoir.**—E. L. V., Hailey, Idaho, writes: "On page seven, in July 15th issue of FARM AND FIRESIDE, is an article on cement floors. I wish to inquire if this floor would be practicable for a reservoir in which ducks and geese are to be kept. Cement out here comes too high in price. If this cement is good for a water-tight bottom and sides I should like to try it."

REPLY:—We think it will answer the purpose. Put on a thin finishing coat of one part of Portland cement to four parts of clean, sharp sand. The sand must be free from earth or loam. Apply this thin coat before the other has dried out or become hard, so that it will unite with it.

**Rape for Fall Pasture.**—Director Waters, of the Missouri Experiment Station, recommends rape for fall pasture. He says: "It is a cool-weather plant, and requires a reasonable amount of moisture; but the spring-sown rape has stood the drought and heat of the summer quite well on the college farm this year. Rape may be sown in the corn where the stand is not good, or where the growth has been seriously retarded by the drought, sowing at the rate of about two pounds to the acre, and cover lightly. If sufficient rain comes to start it well it will make a large amount of excellent pasture for sheep, hogs and cattle, and will continue green until the ground freezes. Its greatest growth will occur after the corn is cut. Rape will do better, however, if sown alone, in which case three pounds of seed to the acre should be used. Dwarf Essex is the variety to use. The seed will cost from from six to ten cents a pound or from twelve to twenty cents an acre, so the farmer will not be at much expense even if the season is not favorable enough to make a crop."

**Spray for Chinch-bugs on Corn.**—B. D., Muncie, Ind. The following remedy for chinch-bugs on corn is recommended by Prof. S. A. Forbes, State Entomologist of Illinois: "Dissolve one half pound of hard or soft soap in one gallon of water, and heat to the boiling-point. Remove from stove, and add two gallons of coal-oil, churning the mixture with a good force-pump for fifteen minutes. When the emulsion is formed it will look like buttermilk. To each quart of this emulsion add fifteen quarts of water, and apply to the corn in a spray—preferably before 10 A. M. or after 3 P. M. The bugs should be washed off so that they will float in the emulsion at the base of the plant. A teacupful to a hill is generally sufficient, but the quantity must vary with the number of bugs infesting the corn." The following method of obstructing the migration of chinch-bugs is recommended by Director Thorne, of the Ohio Experiment Station: "The progress of these bugs through a field may be obstructed by making a shallow, V-shaped trench with the corner of a hoe and filling it with coal-tar, the tar to be renewed in two or three days. They may be destroyed by plowing them under and harrowing and rolling."

# VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Nell Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

**Dry, Hacking Cough.**—P. J. S., Holstein, Mich. A dry, hacking cough is only one symptom upon which alone no diagnosis can be based, because it is a symptom common to several, especially chronic, respiratory disorders, pulmonary tuberculosis and contagious pluero-pneumonia included. If your whole herd of cattle is troubled with this dry, hacking cough it must be concluded that the disease which causes it is either infectious, or, at any rate, of an epizootic character. More I cannot tell you unless you also give other symptoms more characteristic of a specific disease.

**Does Not Perspire.**—W. S. M., Hawthorn, Fla. A decrease or want of perspiration (sweating), or an abnormal dryness of the skin, is not seldom observed in horses and other animals affected with chronic diseases of either the skin or of internal organs, and also in animals suffering from chronic diarrhea or from diabetes, or, in other words, from excessive discharges through the intestines or through the urinary organs. The only remedy possible consists in a removal of the causes. Therefore, where the latter are not known, or cannot be ascertained, or, if ascertained, cannot be removed, nothing can be done.

**A Callous Growth.**—J. J. O., Neoga, Ill. What you call a callous growth is probably what is usually denominated a horny scar. All wounds on a leg of a horse, if situated below the so-called chestnut or horny wart, if allowed to suppurate before they are brought to healing, will produce and leave behind such a horny scar, which latter will be the larger and uglier the more extensive or deeper the wound and the longer it took to bring the same to healing. It is true that such a scar, in some cases, at least, may be excised; but if then the new wound is or cannot be brought to healing without suppuration, the second scar is apt to become still larger and uglier than the first. Therefore, wherever it is intended to make such an excision for the purpose of reducing the scar, the operation should be performed and the after-treatment be conducted by nobody but a very competent veterinarian.

**An Injured Calf—A Sick Cow.**—M. K., Newport, Oreg. Whether the wounds of the calf are gunshot wounds or not can only be ascertained by a careful examination. Concerning your cow, your description, although by no means sufficient to base upon it a definite diagnosis, goes just far enough to raise a suspicion that the cow may be tuberculous.

**Chronic Founder (Laminitis).**—A. G. M., Deligbt, Wash. What you describe is a severe case of founder, or laminitis, aggravated and caused to become chronic and to result in an incurable degeneration of the feet, rendering the horse a cripple as long as he lives, by a very irrational treatment. If the degeneration or pumiced condition of the hoofs were less extensive and less severe than has to be concluded from your description, the horse might be eased and be enabled to do slow work on level ground if shod with good bar-shoes; but as it is I must regard the same as an incurable and wortbless cripple.

**Cow Died.**—D. M., Cold Spring, N. Y. Your description is altogether too meager to indicate with any degree of certainty the cause of death or the nature of the disease of which your cow died. If the swellings you speak of were of an edematous character, the same would indicate the presence of hydropic effusions in the large cavities of the body and beneath the skin; but as such hydropic effusions are a frequent occurrence in the last stages of several diseases of cattle, even these would not be sufficent to disclose the nature of the disease that caused them. A careful post-mortem examination would have secured the diagnosis.

**Shrunken Behind the Hip (?).**—D. McD., Emmet, Cal. If what you call shrinking (behind the hip) was caused by a fracture of a bone, a luxation of the femur (in the so-called hip-joint), or by atrophy in the large muscles situated behind the hip, more or less severe lameness would exist, or, at any rate, would have existed; but you explicitly say that you never saw your mare lame. I therefore do not know what to make out of your communication or how to interpret it, and cannot answer your question. A satisfactory answer can be expected only if an accurate and complete description of the case is furnished.

**Cow Irritated by Flies.**—S. J. S., Van Wert, Ohio. If your cow is tormented by flies while in the pasture, the best protection, it seems to me, is probably given by the Hollandish blanket—a thin, light muslin blanket enveloping the whole animal and secured in position by suitable means. If the cow is kept in the stable (you do not state whether she is kept in a pasture or a stable) see to it that the latter is thoroughly cleaned and is kept clean, so that the flies may not be specially attracted by filth and bad smells, and then put mosquito-bars before door and windows, or else darken the stable when the weather gets cooler. As a protection against flies, a wash with a decoction of walnut-leaves has been recommended, but it will do no good unless it is applied at least once a day.

**A Galled Shoulder.**—C. A. S. T., Lebanon Springs, N. Y. What you describe was in the beginning probably nothing but a galled or severely bruised shoulder. If the blood-serum and perhaps some blood accumulated beneath the skin had been removed by making a small incision in the upper part of the swelling, and then, by introducing a trocar, and with it making a lower opening within from without at the bottom of the swelling, and, this made, by passing an end of twine to serve as a seton through the tube of the trocar after removing the stiletto, and then by leaving the seton, after withdrawing the tube, for a few days in position, a healing might have been effected in a short time. As it is now, the fluid, or watery, parts of the blood-serum and blood very likely have been absorbed, while the more solid constituents have become organized or been changed to a fibroid substance, and as such will be apt to cause renewed bruising whenever pressed upon by the collar. As it is rather precarious to give directions for the treatment of such a special case without having examined it and ascertained its exact condition, the safest advice I can give you is to have the case examined and treated by a competent veterinarian. In the first place, the whole thing could have been easily prevented. If the young horse insisted to be ahead and do all the pulling, and the older, stronger and tougher horse was more than willing to let the young animal do all the pulling, the remedy would have been to lengthen the whiffletree and tugs of the young animal, or to shorten the whiffletree and the tugs of the older horse, and, if this had not brought the latter to terms, to use a little moral persuasion by giving the old rascal a taste of the whip. In some such cases as you describe a treatment like the following is sometimes effective, provided it is applied immediately after a renewed bruising has taken place, rendering the swelling again elastic or fluctuating, indicating the presence of fluid beneath the skin, and the conditions are otherwise favorable. In such a case the upper and lower openings have to be made as described above, but instead of the twine an end of thin rubber tubing, with lateral holes punched in about half an inch apart throughout its whole length, should be used as a seton. It is easily introduced throughout the trocar tube before the latter is removed. Through this rubber tube may then, after no more serum is flowing out, be made twice a day an injection with a solution of sulphate of copper. The first day this solution may be concentrated, but afterward it must be gradually more and more diluted. The injections must be continued until a tendency to heal sets in. But even this treatment, where applicable, is best left to a veterinarian, notwithstanding that it may appear to be very simple, because there is danger not only of overdoing it, but also of stopping it too soon.


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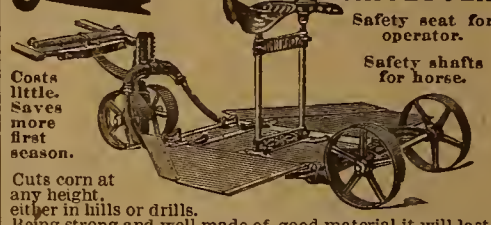

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## THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

### CURRENT COMMENT

**Public Patronage** Oscar W. Underwood writes entertainingly and instructively in the July "Forum" of "The Corrupting Power of Public Patronage." After giving a few notable instances of important legislation in the last few years which was influenced by the necessity of satisfying the cravings of the representatives' constituency for place he says:

"The fact that a member of Congress is regarded as the means through which patronage is distributed has so affected legislation as to cause the unnecessary expenditure of millions of dollars and the passage of bills that otherwise would never have become laws." He insists on the rigid observance of the ideas of the framers of the Constitution; namely, that the legislative branch of the government should be separate and distinct from the executive, that one might be a check upon the other. He continues, "If our government is to last this provision must be guarded with the utmost care. It can only be done by prohibiting by law the representative of the people from having any voice in the appointment of the governmental offices, either directly or indirectly, and making him ineligible for an appointive office under the government for at least two years after the term for which he has been elected has expired. Make his sole business that of legislation, let all fear of punishment or hope of reward come only from his constituency, and the majesty of the people as the rulers of the country will be maintained."

There is food for thought in this. The grange is making a noble fight for purity in politics and economy in legislation. Will the removal of the distribution of public patronage from representatives and senators have the desired effect? Can you suggest a speedier, easier or more effectual method?

**Intellectual Culture** During my early college course a friend and I were talking of the value of an education.

She said, "Why is it, when the struggle is so hard for you, that you persist in taking a full course? A great deal that you have to study that leads to a degree will be useless to you in after-life. You can take a short course, and get a good salary when you go to teaching."

"Because I want to know."

"But of what value, commensurate with your self-denial, the time and strength consumed, will this knowledge be?"

"The satisfaction of knowing."

"What do you consider the greatest thing in the world?"

"Knowledge. A complete culture that will enable me to see truth and realize its surpassing beauty."

Since then I have often been asked why I lay so much stress on intellectual culture, and the only answer is that knowledge is the parent of wisdom, and wisdom is the parent of all true and right living. Some philosophers and economists contend that knowledge alone, without any moral sense, would eventually work out a just system of conduct. We are not prepared to accept this entirely, yet when we look back over the years that are past we are compelled to admit that most of our mistakes and failures are due to ignorance. Had we known enough of the laws that govern life our course in many instances would have been far different. Hence we say, "Had I my life to live over again I would live it far differently;" meaning, "Had I the knowledge at the beginning of life that I have now that I am nearing its close I would have lived far differently."

In the vicissitudes of life we do not hear people complain that they know too much. Rather is there a vain struggling after that which will illumine the path and show its sun and shadow. It is in times such as these that men cry for light, and it cometh not, because they are not prepared to see it. They register a vow that to their children shall be shown that from which their eyes are held.

"We must educate!" says the philosopher. "We must educate!" cries the poet. "We must educate!" thunders the statesman. And the echo rebounds from a million weary, distraught hearts, "We must educate! We must educate!"

We see a thousand evil practices creeping into our public and private life, and are powerless to withstand them. They are the legitimate outcome of years of neglect, indifference, incapacity. We cannot readjust our lives to meet the inevitable consequences that we have brought on ourselves. Too late we realize the eternal, irreversible justice of things, that certain causes are succeeded by certain results, just as surely as day succeeds night. We try to escape the penalty; we condone the offense; we offer apologies; we throw the fault on fate, on the general perversity of things; we try to delude ourselves with a fatuous belief in fatalism; we plead the lack of opportunity—all to no purpose. We know that opportunity knocked at our door day and night, but we would not rise to open. "Yet a little sleep, a little slumber, a little more folding of the hands to sleep!" we cried. Now we would fold our hands, but an inexorable decree driveth us forth. We pray for justice, and our plea is answered that we are receiving our just reward. Then we cry out in bitterness of spirit, "We will give to our children so true a gift that they may overcome the evils we have foisted on them, and escape sowing those seeds that will yield a harvest of tares."

**Where the Fault Lies** "The fault, dear Brutus, is not in our stars,
But in ourselves, that we are underlings."

"I know he would not be a wolf
But that he sees the Romans are but sheep;
He were no lion were not Romans hinds."
—Julius Caesar.

We condemn the power that secures the appointment of John Smith for postmaster, or Tom Jones for revenue collector, or Dr. Quack for pension examiner, yet in the same breath we sanction the system. Why? Because a son or son-in-law who is not self-supporting must find a place that will pay him a good salary; and since many offices are created solely to be filled by men who have an itch for public place, the veriest mediocres can fill them with complete satisfaction to their pocketbooks and pride. We demand honesty in our representatives toward every individual, with the trifling and insignificant exception of ourselves; we would graciously permit a little deviation from the rule of strict honesty. "Give me this place, I pray you, and I will support you on all occasions. Give it to neighbor Brown's son and I will bring all my influence against you." Duplicate this "request" by every one who has contributed in a slight degree to the honorable gentleman's election, and hopes for lucre thereby, and you will realize the predicament he is in. The powerful law of self-preservation bids him give to those who will yield the greatest return. The virtuous indignation of yourself and other disappointed friends, your vociferous demands for honesty and fair play are met with a cynical sneer. "How can you expect honor, rendering none?" is the contemptuous reply.

If all men were honest, if all were willing to earn a living by "the sweat of the face," and not by the sweat of the other fellow's face; to receive only that pay that is commensurate with services rendered, then might we hope for a speedy reform in politics. But since all men are not honest, and a large proportion would not treat with disdain an open bid for support in the shape of an appointive office, we can expect but little real reform. "You are as bad as I," says the spoilsman; "all you lack is the opportunity!" I would not convey the idea that all men are purchasable. I believe there are those who are far above price, but it would not consume an indefinite time of an indefinite number of census clerks to enumerate them. After all, we are led to believe that we have as good laws and as faithful law-makers as we are prepared to have. That a keener intelligence, a more rigid idea of morality, a stricter adherence to truth for truth's sake, and a better knowledge of and regard for civic integrity, would bring relief from onerous and disgraceful burdens, all will admit; and when a fair proportion of our citizens will put forth the exertion necessary to secure to themselves these laudable qualities, then will they receive the sort of legislation that their superior intelligence and worth demand. That we have as good laws as we have is due to the intelligence and integrity of the minority. Make the minority the majority and we will feel our public burdens of whatever nature dropping from us. It seems a small price to pay, yet how few will pay it!

**A Pile of Stones** From the car-window I saw a pile of stones that had been thrown together with some care. "Some one has built that pile in sympathy with those other heaps of rock built as monuments to Thoreau and Helen Hunt Jackson," thought I. "Or, perchance, it marks an event in some life—a turning-point that influenced not only the career of the builder, but of all people with whom he came in contact. He will come back to it some day, lovingly, reverently, as to a holy place. What kind of thoughts will it bring him? Holy ones, I hope." And then my mind reverted to the objects of my early affections: The two tall cedars that stood on either side of the pathway. The hill back of the house, and the one beyond (Mount Sinai we called it), where we could see for miles and miles. The sycamore back of the school-house, with its bare roots forming imaginary horses, pulpits or forums, as happened to suit the fancy of the moment. And that other sycamore just below the "Big Rocks," where, if a flood was coming, we three would scuttle to its branches, rejoicing because the school-bell would ring, and we would re-enact the scenes of Robinson Crusoe; and the timid ones would cry because the water was dashing high against the trunk and hungrily lapping its branches. Of course, we couldn't return to the school-house. Our mock terror precluded any notion of intentional desertion. And then there were the dark woods—the haunts of many a gipsy band—the haw-tree, and the wild grapes that hung on limbs far over the water. Tales of the limitless depths of that particular spot added zest to the grapes. In our imagination there were dark and awful avenues where dwelt witches, hobgoblins, ghosts, elfs and fairies. There, too, we told marvelous stories of hoop-snakes (the most terrifying snake-story teller, recently graduated from Harvard, is a rising Methodist divine) and hydra-headed monsters. From there we took imaginary flights with the magical cap and wand slippers of Hermes. Truly a visionary life that would have sadly shocked our elders.

Yet it is to these same delightful spots that our minds revert when the shadows fall. Joy, we are sure, could be found there. Dark clouds could never enter those sylvan shades, and we long with an exceeding great longing to press our faces against the rich, cool verdure and drink from the Pierian springs that gave such happiness. How impersonal it all is! How lovingly we cling to a tree, or a moss-covered log, or a lichen-grown rock; to the roots of the tree where the anemone and hepatica first put forth their bloom! We analyze this feeling and find it to be love of our native land—patriotism. Emerson said that the reason the Englishman was so patriotic was because of the fine old elms about the homes of the people, and the ivy-covered towers and castles and cottages. No true Englishman could bear to see his ancestral place marred by the removal of a tree or a branch of ivy. I think he was right. I am inclined to the belief that every tree and shrub and vine we plant binds us more firmly to the home place. They become a part of ourselves; they have grown with our growth; they have breasted the same storms that we have; they are unobtrusively sympathetic, and sometimes, from the comfort we receive from them, we ascribe to them almost human qualities. The outcome of the whole affair is, if you want to leave a place, if you feel the desires of your life cannot be satisfied with the environments it offers, never plant a tree or vine, else when you rise to depart the leaves will sigh in sad farewell, and the vine will reach out its tendrils and draw you back and bind you close to the old home.

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### GRANGES ORGANIZED AND REORGANIZED

Herewith is a statement of new granges organized and reorganized from October 1, 1900, to June 30, 1901, both inclusive. New granges organized: California, 3; Colorado, 3; Connecticut, 2; Illinois, 9; Indiana, 3; Iowa, 1; Kentucky, 1; Maine, 17; Maryland, 1; Massachusetts, 5; Michigan, 49; Minnesota, 2; Missouri, 1; New Hampshire, 2; New Jersey, 2; New York, 12; Ohio, 17; Oregon, 4; Pennsylvania, 9; South Carolina, 1; Tennessee, 1; Vermont, 16; Washington, 3. Total, 164. Granges reorganized in same period, 58. John Trimble, Secretary.


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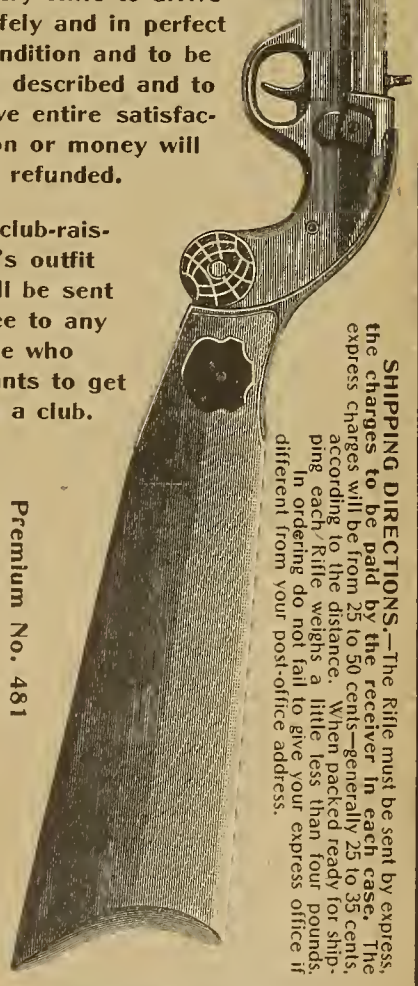

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**FARM AND FIRESIDE**
**Springfield, Ohio**

# LACE-MAKING

## No. 1—IN THE PAST

BY HOPE DARING

At the present time vast quantities of lace, both hand-made and machine-made, are used for decorative purposes. Although the amount used seems to increase as the years go by, the art of lace-making is not a modern one. It is claimed that it was first made in Egypt many centuries ago.

Both the Greeks and Romans had a heavy lace. These were made of coarse threads and the patterns were open. They were rarely used for personal decoration except in the cases of the priests. Instead these rude laces were employed to ornament hangings and draperies.

In the fourteenth century lace-making was introduced into the convents of Europe. The kind first made was called point-lace, although it differed somewhat from the variety which afterward bore that name, and also from what is now so designated.

The point-lace of that period was made in the following manner: The exact figures of the pattern were cut out of linen, and over these the lace was wrought with thread so fine that it seemed to rival in texture the web of a spider. Each figure was made separately, and they were joined together by a connecting web, a part of which consisted of single strands of the fine thread and another part of a sort of loopwork which resembled the modern crochet-stitch. There seems to have been no set pattern. Each worker designed her own and worked it out with artistic taste.

Specimens of this lace are still plentiful and are highly prized by collectors. The bits of fragile beauty, preserved through so many long years, bring before one a vivid picture of the pale-faced nuns by whom it was made. Shut in from the joy of family love and the beauties of nature, they wrought with infinite patience those intricate patterns.

Just here is a blank in the history of lace-making. How it came about is unknown, but it is plain that the art of making this kind of point-lace was lost, never to be found. In its place came what collectors call "point-lace of the second period." This is beautiful, but shows less originality of design than the first. A pattern was marked out on linen and the lace woven over it by the needle. It will readily be seen that this process resembled that now employed in making point, Honiton and other laces. It must be remembered, though, that we reduce the labor by using various braids, wherein the "point-lace of the second period" was woven entirely from the finest thread.

Soon after this time pillow-lace was first made. The method of producing this was very different from that which we have just described. The lace was made upon a cushion, or pillow, the threads being held in place by pins and woven back and forth with tiny bobbins.

It is not clear to whom belongs the honor of this invention. Beckman, a German author of the eighteenth century, claims it for a woman of Saxony, "Barbara, wife of Christopher Uttman." He gives the date as 1561, and relates many interesting incidents regarding this good woman, one of which is that she lived to see sixty-four of her descendants—children and grandchildren.

In making pillow-lace the pattern was marked on parchment. Each pattern was in length the same as the width of the cushion, usually about eight inches. When the lace was woven over the pattern it (the strip of lace) was removed and replaced so that the work could be continued. In a few years, however, some bright worker conceived the idea of making the pattern long enough so it could be fastened entirely around the cushion. Then, by turning the pillow, the work could be continued without the lace being removed.

The pillow-made laces are more regular than those made by the needle; still they have never been as highly prized, if we except the early Valenciennes. This is doubtless because the point is more original, seeming to possess a larger degree of the maker's individual taste and skill.

Valenciennes lace took its name from a manufacturing town in northern France. It is supposed the lace was first made in that city. At all events, it was long produced there in large quantities. It is sometimes made with a square mesh and again with a round one. Flowers and beautiful scroll designs were woven into the groundwork of net. The work was done very slowly, both on account of the fineness of the thread and the intricateness of the pattern. It is claimed that it took a lace-maker ten months to make a pair of the lace "ruffles" then worn by men. Valenciennes was durable and pieces have been handed down from one generation to another to this day.

There were other varieties of pillow-lace beside the one just mentioned. Its manufacture was introduced into England at an early date.

### THE COUNTRYWOMAN'S CLUB

There are so many delightful possibilities in the banding together of individuals of similar taste and environment that I wonder there are not countrywomen's clubs all over the land, while the fact is that I have never heard of but very few. The life of a farmer's wife ought to be, and frequently is, a very happy one; but not all the freedom of it nor its nearness to nature can keep a note of monotony from sometimes creeping in, even when the home is beautiful (as, alas! all country homes are not), the men-folks thoughtful and money plentiful enough to keep down anxiety—conditions which rather rarely prevail. How, then, about those other homes where living itself is a problem, and daily toil and care have hemmed the women in until their horizon has narrowed to that pitiful degree that gossip has come to seem to them their one recreation? They are perhaps not as conscious of something lacking as are their more fortunate sisters, but the need is there, all the same, even though their lives are so different.

Every community is made up of farmers of different classes; but that need not interfere with the organizing of a woman's club if some unselfish individual will undertake the work, for all these women are interested, in greater or less degree, in the same things. They all have their poultry, their milk and butter to manage, and their canning and preserving to do, their children's clothes to make, and their housekeeping to be reduced to the minimum of labor consistent with the best results. Now, it is self-evident that good must follow an intelligent discussion of these things alone—material good—and there is not one who will gainsay the fact that the mere meeting together would be pleasant. But there is another wide field of usefulness for the club, in the true spirit of neighborliness which it would engender.

The club should be carefully organized and planned for, and its aim (mutual benefit and pleasure) definitely stated; and while the discussions may be very free, still it is wise to remember that the observance of parliamentary rules, which are easily learned, lend dignity to that body and obviate any tendency to disorder. The meetings could be held fortnightly, from house to house; and, as the membership is not likely to be large, it would be pleasant for the hostess of each occasion to serve a simple refreshment. I knew of one club which included very rich women and very poor ones, but they managed the lunch question nicely by agreeing among themselves that no individual should ever have more than three articles on the bill of fare, though she might have less if she cared to.

Now for subjects for discussion. In addition to the ones I have mentioned, and which are of inexhaustible interest, others will present themselves from time to time. Current events, of which the countrywoman is often woefully ignorant, may be talked over at every meeting, with the aid of pertinent editorials and opinions of public men, of which each woman may gather one or more from the newspapers. Magazines may be exchanged or loaned, and new books bought, enjoyed and discussed.

The beautifying of the home is another fruitful topic, for women never tire of learning how to make the best of such things as they have or may attain. The culture of flowers and the exchange of bulbs, roots and cuttings might come under this head; and I wish I could impress upon those who have not already learned it for themselves what a world of pleasure and comfort a busy woman may derive from a few plants. I have an old neighbor whose life has been unusually full of labor and sorrow, and she has often said to me that her reason would surely have failed her years ago if it had not been that she always made time to work with her flowers.

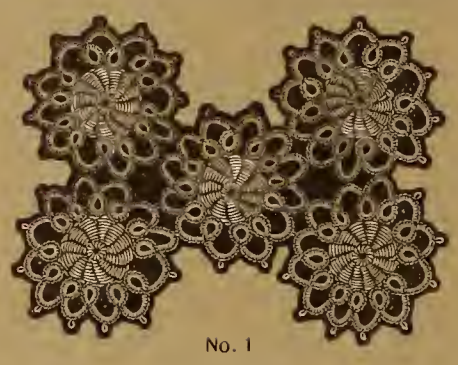
The mothers who will come together are sure to speak of that blessed subject which is ever uppermost in their minds—the dear children—and helpful ideas may be gained from one another's experience, and perchance some sense of a higher responsibility be awakened in some rather thoughtless mother's breast.

This brief outline is merely by way of suggestion, and each community may elaborate for itself a plan peculiarly its own. The idea of a countrywoman's club is perfectly feasible and practical, and it only needs the individual who is behind every organization to carry it out, and as surely as "iron sharpeneth iron" so surely will good follow to all concerned.

Susie Bouchelle Wight.

### LACE STOCK-COLLARS

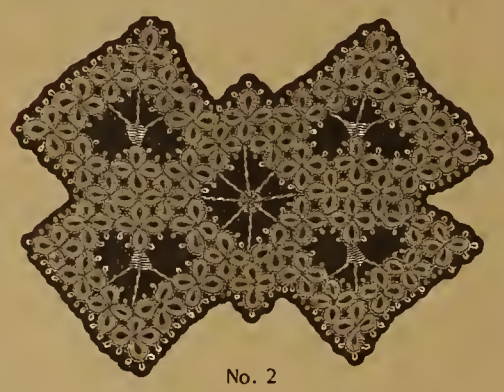
No. 1.—This design is made of bleached linen thread No. 80, and is composed of tatted medallions filled in with wheels in relief crochet. Tie spool and shuttle thread together, make a ring of * 5 doubles, picot; repeat three times, 5 doubles, close; with two threads * 6 doubles, picot; repeat three times,



No. 1

6 doubles, forming a scallop; ring, scallop, ring, scallop, joining the latter at first picot to middle picot of second ring, and second picot of the same scallop to middle picot of first ring; finish the scallop, ring, joining the latter at middle picot to middle picot of third ring; scallop, ring, joining at middle picot to middle of preceding rings, making a trefoil; scallop, ring, joining at middle to first picot of fourth scallop; ring, drawing up closely to last ring; scallop, ring, scallop, joining at the first picot to middle of seventh ring; complete the scallop, ring, joining at middle to middle of last ring; scallop, ring, join to middle of preceding rings, making another trefoil; scallop, ring, joining at middle to first picot of the eighth scallop; scallop, ring, joining at middle to second picot of the eighth scallop.

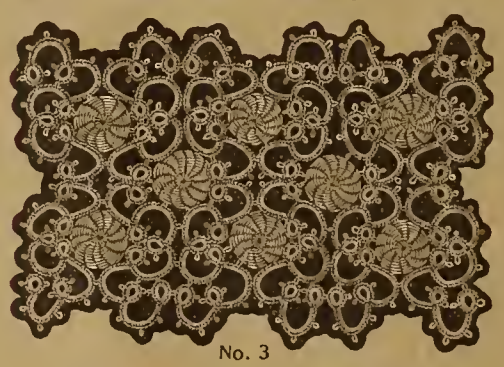
This completes half the medallion. The two halves are joined at the middle of the second, fifth and ninth scallops. Join the me-



No. 2

dallion at the first picot of first rings, at the last picot of third scallop, at the first picot of fourth scallop, at the last picot of seventh scallop, at the first picot of eighth scallop, and at the first picot of the last rings. To make the wheels, chain 4, close; over this ring make twelve roll-stitches of eleven overs each, beginning with the second chain; fasten thread securely at back of work. The center wheels are fastened at the middle picot of the four surrounding scallops, and the outside rows of wheels are joined to each picot of the circle. The wheels may be made first and joined, as the medallions are made or sewed in afterward with needle and thread.

No. 2.—This design is so simple that but few directions will be necessary. With No.



No. 3

80 unbleached linen thread (a finer thread of either silk or linen may be used if desired), make four rings, and draw closely together (10 doubles, picot, 10 doubles). Join these little four-leaved medallions in squares, four on each side, with an extra one in the center, as the illustration plainly shows, and fill in the open spaces with the lace-stitches that are familiar to even the amateur in needlework. The tatted work must, of course, be firmly basted to some heavy material.

No. 3.—With the exception of the center wheels, which are made of ecru, the thread is the same as used in No. 1 and No. 2. The wheels are made first, as follows: Chain 5, join; chain 3, twelve roll-stitches of sixteen overs each in ring. With two threads make first a ring of 12 doubles; join to wheel between two roll-stitches, 12 doubles, close; with two threads a scallop of 8 doubles, picot; 8 doubles, ring, joining at the same place as first ring, scallop, ring, miss two roll-stitches, join, repeat from first scallop all around, making twelve rings and twelve scallops. Join the completed wheels as shown in the illustration. These are used upon stock-collars as decorations for the neck.

Julia A. Williams.

### THESE MOONLIGHT NIGHTS

"How is it that the young people who meet at your house always have such good times?" inquired one lady of another.

"I am sure I don't know, unless it is that I always have a good time with them."

Aye, there is the secret—the putting of one's self into the pleasure of the occasion. A hostess may not be wealthy, may not entertain "elegantly," yet she may be a very popular hostess for all that. Simple refreshments and "loads" of whole-hearted fun are far more appreciated than elaborate refreshments and "a stiff time."

A different kind of entertainment must be provided for our guests now than in the winter-time. At this season they desire something in the line of lawn-parties.

Quoits, or ring-toss, is a delightful outdoor game. This is nothing more than the royal cousin to the horseshoe game. To make it, fasten an upright stake about six inches in height to a circular board; from heavy ropes make six rings six inches in diameter, cover them with bright silesia, and they are ready to "toss" on the upright stake. Divide the company into two divisions, and let the clerk keep tally. Whenever one from a side tosses the ring over the stake twenty-five is scored for his side; if the ring touches the circular board five is added to the player's side. Any number may be the game, from two hundred up.

Bean-bags afford great amusement played in the house or outdoors. Make bags four inches square, and fill lightly with beans. Take a board, saw a hole in it large enough for the bags to fall in easily, nail a prop on the upper end to hold it up, letting the lower end rest on the ground, thus making the board an inclined plane. Sides may be chosen and the game played as in ring-toss.

The peanut race may be entered into by as many as will contest, provided there is sufficient room and peanuts. As many peanuts are given each contestant as will lie along the blade of a knife. The person who succeeds in getting to the required goal with the greatest number of goobers on his knife-blade is rewarded with a sack of the ground nuts.

Apple and potato races are also popular. In these the contestants are required to pick up with a teaspoon the apples or potatoes one by one and carry them to a given place. In their hurry those from opposite sides will hit each others' elbows, causing the potatoes to fall, which adds to the amusement of all concerned.

The clothes-pin game never grows old. Two rival lines sit facing each other. Seven clothes-pins lie on the ground by the side of each captain. At a given signal the captain picks up the pins; that is, he endeavors to do so, but some will be certain to elude his grasp. He must take them all from the floor in one hand, put them in the other hand, then on the floor, to be treated in the same way by the person next him, and so on down the line. The side which succeeds in getting all the pins back to the starting-point wins the game.

This game may be played by the parties standing on the lawn. Each captain holds a basket filled with pins; these are handed one by one to his neighbor, who must receive in one hand and pass with the other hand. The men at the end of the lines hold in their hands empty baskets, and the one who gets his filled first is the one who "gets the game" for his side.

The person making the greatest number of words out of the compound word "lawn-party" was the "guest of honor" who sat at the head of the table.

The cry is for "something new" by way of entertainment; yet I believe there are some games, tried and true, that, though ever so old, will ever be new.

Ella Bartlett Simmons.

## WHEN THE FLIES COME BACK

About this time the flies come back, and mother takes alarm,
Declaring that if they're not stopped in every room they'll swarm.
It doesn't take her long to make up her mind what to do,
And she says, "Pap, just fix the screens as soon as supper's through."

Pap doesn't like the job a bit, and says it's much too soon,
Because flies never come around until some time in June.
But just the same, although he growls, he finally gives in,
Then to the cellar goes, and soon there's heard a fearful din.

He throws the screens all round the floor, to get them sorted out,
Then stacks them up by sizes so there won't be any doubt.
And then he pulls them down again so he can clean them off,
And raises such a cloud of dust he has to choke and cough.

At last he gets them all arranged and settles down to work,
While mother stands near by as though she fears that he might shirk.
Pap fusses round, and hits and bangs, at last he stops to frown,
Then mother says, "My goodness, man, that door's on upside down!"

Pap says it isn't so, but soon he sees that he is wrong,
Then yanks that door off, and you bet it doesn't take him long.
He tries again, and gets it right, but it won't snugly fit,
And then he has to hunt a plane and shave it off a bit.

By this time pap is mighty cross and says he's had enough,
But mother keeps him right at work—she won't stand any bluff.
At last the screens are all in place, on windows and the doors,
And it is after midnight ere pap in his bedroom snores.

There's always trouble round the house about this time of year,
For mother gets excited when she sees the flies appear;
And pap gets so disgusted that he figures in some scenes,
And says harsh things about the man responsible for screens.

## TRAVELING HELPS FOR THE NOVICE

"I'VE been on a collecting tour; rather a unique one, too," announced a would-be traveler recently. "I expect to enjoy a well-earned rest," she continued, "and spend the autumn days in travel, and I've called on all my acquaintances who are known as experienced globe-trotters for the purpose of collecting traveling helps. Did I succeed? Well, if you could only be made to realize the multitudes of people that are brimful of advice concerning the selection of trunks and bags, all the details of packing and unpacking, ocean voyages and traveling by train, and suggestions for seasickness and emergencies galore! Adding to my own experience all this advice and these warnings I've a fund of information for all who care to give heed."

### SELECTING THE TRUNK

This is naturally the first thing to come up for consideration when planning a journey, for much of the pleasure of the trip will depend upon the convenience of this very necessary article. There is little comfort in the heavy, unwieldy affairs that once were considered indispensable. The practical dealers will tell you that the newest and best trunks are built of wood-fiber and reinforced with sole-leather, fitted inside with pressed-paper trays, and the result is a good-sized packing-box that a little woman may pull and haul where she will, it is so light. This decrease in weight does not mean a smaller space for packing, by any means, for new ideas in compartments and conveniences make systematic packing a delight. It is claimed that although the manufacturers have been a long time in reaching these points, they have accomplished now a surprising number of charming conveniences. First of these is the series of canvas bags, or pockets, in which the shoes, slippers and a number of other small articles which are usually hard to dispose of in the packing can be neatly stowed away. The top tray, of pressed paper, to this storehouse is a wonder, and, indeed, quite as cozy as one's top bureau drawer for stowing things in. It is separated into compartments by wickerwork, and there is one compartment for gloves, one for handkerchiefs, one for veils, one for the number of small boxes containing the toilet accessories, a complete work-basket, and a writing-pad that lifts up and out on hinges, so that one can write letters at ease, even if there are very few accommodations in the hotel quarters. In still another corner of the tray is a small medicine-chest fitted up with simple remedies, which one may possibly think superfluous, but is likely very soon to find most convenient. Inside the lid a bag of dainty-patterned oil-cloth is fitted and drawn up with a string; this will hold soiled clothes, and is a perfect luxury.

Just the description of this acme of traveling convenience is enough to give one the desire to start right off on a journey. Even if when packing one does not use each particular compartment for the articles intended for it, preferring to reserve the trays for the crushable articles, and using the shoes, etc., for ballast, it is while sojourning for a time in one place, or enduring the inconveniences of hotel life in various out-of-the-way places, that the conveniences of this ideal trunk for the "unpacked" articles will be fully appreciated.

### THE VARIOUS HAND-BAGS

No matter how convenient the trunk may be, nor how fully capable of holding all the belongings one cares to take on a journey, a satchel or hand-bag of some description is simply indispensable for a long trip, for certain articles must be ready for frequent use when it would be impossible to gain access to the trunk.

"The model traveling-bag for the season," says a friend who owns one of these conveniences, "is made of yellow calfskin or Russia leather, and lined with rich, watered silk of whatever shade or color may best suit the fancy. The inside rim, lock and clasps are of aluminium, and its interior appliances for the toilet are also mounted in this featherweight metal." Another girl, who could not afford this modern affair, told of her contrivance in arranging a dainty folding leather case, into which combs, brushes, etc., were fitted and the whole slipped into her old Gladstone bag, bringing it quite up to the highest standard of satchel convenience. It must be remembered that a well-equipped bag should have pockets on the outside for the reading matter, purse, handkerchief, etc., that may be reached without opening the well-packed bag.

### PACKING THE TRUNK

Those who have been bemoaning the fate that has caused the return of the tight sleeve will appreciate the recompense at trunk-packing time. We no longer have to study how the full sleeves can be packed without creasing. There is no bother this year with stuffing out balloon-sleeves with stiff, brown tissue-paper, and devoting the whole of the deep trays to bodices which seem literally "all sleeves," with the entire tray showing its bewildering assortment of great, soft puffs. But even with the advantages of small sleeves trunk-packing will not be the easiest thing imaginable. Almost every one thinks that trunk-packing is an art that is easily mastered; at least this is the opinion until one finds it necessary to attend to really important packing for an extended journey. It seems such a simple thing to put a lot of clothes into a receptacle big enough to hold them, but the consideration of wrinkles and the solution of the problem "six into five" never enter into their plans until the things are ready for the packing, the trunk ready to receive them and the packing actually begun. Then the inexperienced traveler gives a gasp and frankly admits that she does not know quite as much as she thought she did.

"The marvel of packing clothes is that it is so simple," proclaims the professional French packer; and he then proceeds to put three times as many things in the same space as you would, and it is surprising how fresh they appear at the end of the journey. Some goods wrinkle so badly, however, that no amount of care can avert catastrophe; they come to grief even in the hands of the French maid at home. Test everything you buy from this point of view, and with material not given over to evil you may learn to pack so that the clothes will not tell the tale of their prison-house.

The importance of firmness must be remembered throughout the packing. More damage is done to woman's attire by its sliding from corner to corner than ever comes from the tremendously tight squeezing that necessitates one half of the family standing on the lid while the other half endeavors to adjust locks and straps in proper places. The cardinal point is to wrap up every delicate garment separately; of course, it should be folded smoothly, and to teach in print how to fold clothes is not easy. Any good dressmaker can give points on this, however. The wrapping is quite as important. It may be necessary to pin towels about the special garments; but remember that newspapers are what are needed to fold between each layer of pretty things in the trunk; nothing else seems quite so good, for they are so unyielding that wrinkles and protuberances cannot make themselves felt through them to mark the fabrics beneath. But when garments that will receive little injury from wrinkles are packed, neither the extra wrapping nor the folds of paper between will be necessary, and in many instances the greater part of the body of the trunk can be thus packed, one garment laid evenly and smoothly upon another, reserving the trays for the articles requiring special care.

MRS. P. W. HUMPHREYS.

## A LOVING-BOOK

That is the name that Ruth gave to the booklet she made for the wedding anniversary of her father and mother, and there was no present that they valued more, not only for the sake of the dear girl's work, but for the things of interest in the book, which brought freshly to their minds so many happy days of the past.

The book was made of cream-tinted paper obtained from a printing-office. The paper was cut eight by five and one half inches, and after each page was prepared the whole was tied or laced together across the narrow (five and one half inch) side that gave room for the pictures inserted.

On every page (one side left blank), or leaf, rather, there was either a drawing by Ruth or the print of something that had made a part in the life of father or mother, sometimes of both.

At that time Ruth had not a camera; but her friends who used cameras helped her by loaning her negatives, if they had what she wanted, or in several cases they took the pictures on purpose for her use. Ruth printed them herself, for she had long counted a printing-frame among her valuable possessions.

In the book were pictures of the old homesteads of both father and mother, the little brook near one home and the chestnut-trees near the other, then the school-house, and the mill hill where the school-children used to slide downhill. There were choice trees, especially one where the picnic dinner used to be spread, so the mother had told her, and which later was a trysting-place of beautiful memory. There was a rime or apt saying with each picture.

Many who saw the book were minded to go still further and bring into use some idle cameras, and take some historical spot near their own homes or pictures of pretty little waterfalls or odd nooks and corners.

Ruth formed a little "blue-print society," and showed her friends that they could use blue-prints in many ways when not having any negative made or started with a camera, but could make some kinds of negatives themselves. The reason she used blue-prints was because they were so inexpensive and so easy to manage. She and her friends did all this for their own pleasure. When one makes prints to be reproduced, as it is called, of course the prints must be made on other paper; but the work in that pretty little country-side was not for editors, so blue-prints answered.

Blue-print paper can be bought in any city at twelve cents a yard. This paper works well, but it must be used up quickly, for air ruins blue-print paper, though after the prints are made and thoroughly washed they are permanent. If one buys a yard or any length of the paper he must cut it the size he wishes in a dark room.

Architects and those making mechanical drawings draw their plans on drafting-cloth (which is a sized, prepared cloth) with a drawing-pen and ink. The little blue-print society knowing that, got drawings of many things they valued; these were really negatives after they were on the drawing-cloth and could be nicely printed. Ruth showed the club how to prepare their own blue-paper. She bought large sheets of fine, smooth white or cream paper at a printing-office in the nearest town. Then she, with the club, prepared two solutions, and put them in separate bottles. They then followed Ruth's directions: No. 1. Citrate of iron and ammonia, one and seven eighths ounces; water, eight ounces. No. 2. Ferricyanide of potassium, one and one fourth ounces; water, eight ounces.

When ready for use take equal parts of the two solutions and mix for immediate use. The paper should be pinned to a drafting-board, mother's lap-board or some flat surface, and after going over the paper once with a brush or sponge wet in clean water, then with a sponge or soft cloth or fine brush, apply the mixture, taking care that the application is made all one way—the long way of the paper. This must be done in as dark a room as one can work.

The citrate of iron and ammonia can be bought for fifteen cents an ounce, while the potassium is ten cents an ounce, and this makes solution enough for a large number of prints. A printing-frame can be purchased for a few cents, or an ingenious person can make a frame for printing.

The little club, under Ruth's direction, prepared many things for amusement for the next winter—games of various kinds. They obtained the leaves from as great a variety of trees as they possibly could and made prints of them. After the print is made there is nothing to do with it except to wash it in running water or else change the water many times. After the prints are thoroughly washed hang them over a little line in the house to dry.

The printed leaves make a nice winter game. Mount all these prints on separate cards, but do not put down the name of the tree from which the leaf came. A prize can be offered for the one who writes correctly the names of the most leaves. Out of twenty kinds of leaves it is surprising how few are definitely named by people who live in the country and deal a great part of the time with nature, as is at least supposed.

There is still another way of preparing the leaf game. Take a small spray or little branch containing three or four leaves, and fasten this branch on a cardboard of suitable size; glue the leaves or branches, and have all the cards the same size. These will furnish amusement in the winter game if the blue-prints have not been made.

When the paper is put in the printing-frame it is of a yellow color. After a short time in the sun the picture begins to show and the paper to look brownish; when the shadows are a little bronze the print is done or ready to be washed. The reason that the water brings out the picture is that the part not affected by the sun's rays is still soluble, and the part affected is insoluble; so the water clears the paper of the soluble part and leaves the other.

Of course, there is a more expensive blue-paper that comes in sealed tin boxes, and one has to buy the ten yards in the box, for the dealer cannot risk opening the box and so exposing it to the ruinous effects of light by dividing it. But Ruth and her blue-print club planned their work on economical lines.

There are many cameras in every community nowadays; but many owners of cameras need the inspiration of a blue-print society or some spur to make use of the camera and not have it as a toy. From the hint of the "loving-book" there might be a book made with animal pictures taken at or near home—the cat, dog, a favorite horse or cow, the plowing, the hay-load, etc., the pony hitched to the cart, or the boy on his back. If one is fond of flowers, then take flowers; if there is no Ruth to start the matter, then let some mother learn enough about it all to be leader.

In vacation-time perhaps the best, at least the most practical, thing is for the young people to stay at home, or mostly at home; then plan interesting things for both the boys and girls. By and by work will necessarily absorb them, as it now does the heads of the families. While they must help each day, still do help them to do or have something going on of special interest. If they care not just for "loving-books," let there be something as sweet as was that "loving blue-print society."

MARY JOSLYN SMITH.

## MOWING GRASS

Where the blue flowers peep below,
Where the brown birds hover,
There a million grasses grow,
Waving tassels to and fro,
And amid the grasses show
Dog-daisies and clover.

Falling like a feathered lance
Seeks the lark his pillow;
Blues and coppers flirt and dance,
While across the green expanse,
As the breezes downward glance,
Rolls a silver billow.

Tormentil and cuckoo-flower,
Vetch and yellow rattle,
Tender brood of sun and shower,
You have reached your golden hour
That our cattle may devour—
Food are you for cattle.

Ragged-robin, wild and free,
Campion and sorrel,
Hard, indeed, your destiny;
Hard, indeed, but it must be,
Cows must feed, and so must we,
Therein lies the moral.

—Jessie Pope.

# About the Dwelling-house

BY LIDA LaBROWN

"OH, FOR a lodge in some vast wilderness!" sang the gifted bard. There are those who profess to believe that the poet, when thus he sighed, was in arrears for rent, and they give as paltry proof that he oh'd for a lodge in the wilderness! Such is fame! But the view most commonly accepted is that our poet wished for retirement amid nature's untamed charms; that the wildwood affords a sense of rest after the bustling activities of city or other busy life. If the sweet singer ever acquired his cabin in the woods, doubtless ere many moons waxed and waned over his forest-embowered abode he "oh'd" just as fervently to be back in the clang of civilization and enlightenment, to bear part in the strenuous life where the "nobility of labor, the long pedigree of toil," so musically set forth by Longfellow, are attested in part in monumental piles of brick and stone—buildings erected for homes, schools, churches, institutions, and in the interests of trade and commerce.

The dwelling-house should not be situated in any place resembling a wilderness, to say nothing of one of vast expanse. The site is of great importance. High ground is very desirable; so much so, that if not sufficiently elevated it should be filled with earth until it is made right. If there is naturally a good fall, so that a cellar can be drained well, there should be a good one made, if the entire basement is not excavated. If drainage is insufficient one may dig one half or one third the depth of an ordinary cellar and build up double walls, with air-space between, and place a store-room above. The cellar may be seven feet deep, and thus six or eight steps will take down to the cellar, and the same number lead to the store-room, or upper cellar, as it is sometimes termed. These rooms may be placed in a corner of a building or at one side, as most convenient, adjoining the kitchen. A drawing of a plan of a house with such a cellar arrangement, that has proved very satisfactory, may be presented at some future time.

A proper amount of shade about the dwelling adds to its charms; but let the morning sunshine in. Summer vines may be trained to an east veranda. But few trees should be on the east side of the house, and these should be deciduous—one a little south by east from each window, ten or fifteen feet distant, and trimmed up to a good height above the ground, so that the sunlight may readily dry and warm the soil.

Evergreens are fine as a wind-break to the northward, and one or two on the southwest for shade if the situation is very sunny. The catalpa, which has so much to recommend it, is an admirable tree. While young it should be trimmed to make it shapely. Some like the locust-tree very much. These two kinds are wonderfully ornamental when in bloom, and are always sightly as well as valuable for timber.

Where garden or orchard space is limited, May cherry-trees combine beauty with utility for shade about the house, but their growth is not rapid. Apple-trees of the winter or late fall varieties answer this purpose quite well. Trees that bear early apples abundantly so litter the ground with fruit as not to seem very desirable near the house. Pear-trees of the varieties the fruit of which is gathered to ripen may be made useful in sunny spaces.

Too often the future is not kept sufficiently in view in planting the orchard, and it is set too closely. With maples for shade this would not matter so much, as the less sightly ones can well be removed; but one hesitates about a choice apple. However, crowding is eventually fatal to the life or health or fruit production of the tree, so one should carefully limit the number of trees about the house. What seem such immense spaces at the beginning may well be set in strawberries or raspberries, which in a few years will need a new location.

As to verandas, overornamentation about the eaves is to be avoided. Brackets and the like are lodging-places for dust, a delight to the English sparrow, and form points of attachment for numerous spider-webs. The expense of the decorative and costly woodwork about some verandas of homes, where economy was much needed, could have been better applied to extending woodhouse, coal-bins and other conveniences that are a delight every working-day when well arranged.

In connection with the woodhouse the summer kitchen claims attention. The floors of this apartment, the house and woodhouse should all be on a level and connected. Life is too short and health too precious for women to wear themselves out jogging up and down steps, when a few dollars will make the foundations required for these lighter buildings a proper height.

Once in a long while there are those who seem to consider the house too nice to be occupied, and live principally in the summer kitchen during warm weather. No one should build a house too good to use. To close up pretty and inviting rooms and pass days in the generally not overcheerful out-kitchen is wilful waste of the beautiful. There are other wastes besides those of time, strength and money. "There is that which scattereth and yet increaseth; and there is that which withholdeth more than is meet, and it tendeth to poverty."

## PICKLES

To make good pickles seems to be an art. The first mistake many housekeepers make is in the washing of them. Yes, they must be washed, but must be handled with the greatest care, so as not to bruise the little protuberances upon them, for if you do you will have soft pickles.

Try to have them nearly of a size. Sort them so they will be, for a small pickle does not need as strong brine or to remain in the brine as long as a larger one. Put small ones in a weak brine for six or eight hours. Then line your kettle with washed grape-leaves, and put in vinegar and water in equal parts to cover your pickles. Do not scald too many at once. In another vessel have some good strong vinegar heating. Remove your hot pickles to your jars, and into a quart jar put one tablespoonful of sugar, one teaspoonful each of black and white mustard-seed and celery-seed, and a small piece of ginger-root; fill up the jar with hot vinegar, and seal immediately.

If short of Mason jars use wide-mouthed bottles, and seal by pouring melted wax upon a piece of new muslin to fit the top of the jar, tying tightly with a string, and over this placing a piece of cotton batting and another piece of muslin. I have never lost any put up in this way.

I gave up putting spices in my pickles years ago, and have found this way much better liked and also much easier. If large ones are liked, put down in strong brine that will bear an egg, in stone jars or small kegs. When wanted, soak over night in fresh water, and use this same formula for pickling them; or, if spiced pickles are liked, pour over the number you wish to prepare a strong, spiced vinegar.

During the season do not fail to put up some sliced cucumbers fixed as you would for the table, but not soaked in salt-water. Fill up the jars with cold vinegar.

A nice meat-relish can be made of chopped cucumbers and small slices of onion. Season with salt and pepper to taste, put in sealing-jars, and fill up with cold vinegar.

For immediate use take sliced cucumbers, season with salt, pepper, one tablespoonful of sugar, vinegar to cover, and then add thick cream. It is delicious if care is taken to put in the sugar before the vinegar or cream. Have the vinegar scant in covering them, and let the cream be as a top dressing. Set upon ice till ready for use.

Delicious pickles are made of other things besides cucumbers—cherries, plums, Seckle pears, wild crab-apples. For these scald until the skin starts, then remove with a penknife, pack in jars, and pour over them a well-sweetened vinegar cooked with spices. Watermelon-rind should be included in the list. Pare it and cut into long pieces, cook in water until tender, then remove to the sweetened, spiced vinegar, and cook until it is clear. It should first be soaked in salt-water for a few hours. B. K.

## UNEXPECTED COMPANY

There seems to be a firm belief among our city friends that because we live in the country we are always prepared for company, so they do not hesitate to come upon us at the most unexpected times. It is no uncommon sight to see a carriage-load of hungry people drive up to our door about eleven o'clock in the morning and expect a fine dinner to be served before one o'clock.

When company is expected it is a comparatively easy matter to get up a nice dinner on the farm, with eggs, milk, cream, butter, fruit, chickens and fresh garden vegetables in abundance, but unless we have learned by bitter experience to be prepared for just such emergencies, unexpected company may find us just as we have sent all the butter and eggs to market, the chickens running abroad where it is almost impossible to catch them, and other similar deficiencies in our larder.

Of course, as some one has suggested, we can keep a supply of canned goods on hand and get up a dinner with them that will prevent starvation; but it will not be very satisfactory to our city friends, who have enough of that kind of fare at home. We have learned to have a supply of such food as will keep well always on hand. In the fall we make fruit-cake enough to last a year, and it improves with age. We very seldom use it except on special occasions, so three good-sized cakes are sufficient. In the winter we sometimes use it as a pudding, when unexpected company comes, by steaming the slices and serving them with a sauce. We always have a supply of some kind of fruit, each in their season, and garden vegetables in abundance.

The most difficult problem is that of meat, for company is almost sure to arrive on the day the butcher's wagon does not put in an appearance. In the winter we usually have hams and sausage, and by slicing and frying some of these, and packing the slices in jars and pouring over the grease that cooks out until they are well covered, then setting the jars in a cool place, it is not difficult to keep a supply until chickens are large enough for broilers. It is a safe plan to have a small yard and keep three or four chickens shut up every day until you are sure you will not need them. It is not much trouble and may save you some worry. Don't send all the eggs to market, nor the butter, but be sure to keep a supply on hand for emergencies. A dinner of eggs and nice sweet bacon is almost always relished by city folks, who have fresh meat every day at home, but cannot always get fresh eggs.

A green salad is always relished on a hot summer day, and every farmer's garden should have the wherewithal to make it; in fact, salad should be an every-day dish on his table. Cooked salad-dressing may be kept for several days in a cold place, and if that is not on hand it will take only ten or fifteen minutes to make a mayonnaise if fresh eggs, good salad-oil and a lemon are at hand; and French dressing, which many people prefer for a green salad, can be made in three or four minutes. If time is short or help scarce, press some guest into service to make the salad-dressing.

At this season there is usually a good supply of sour milk, cream and buttermilk on hand. If the supply of bread is short a panful of cream-biscuit will delight the palates of the guests. Cottage cheese, made from sour milk, seasoned with salt, pepper and a little cream, and served on a bed of crisp lettuce-leaves in a glass dish, is an attractive dish and nearly always a treat to city folks.

Of one thing we may be quite sure—the drive has given our guests better appetites than usual, and if our dinner is a little late it will be no disadvantage, but add to the zest with which it will be eaten. If we can only give them our every-day fare it will be a change for them and far more acceptable than a dinner of canned foods.

MAIDA McL.

## HOT-WEATHER DRINKS

TEA-PUNCH.—Into three cupfuls of strong green tea put the very thinly pared rinds of six lemons, one and one half pounds of sugar and the juice of six lemons: stir well together, then strain, and lastly add one quart of good rum. Fill the glasses with shaved ice when used. It will keep any length of time when bottled, and is nice for picnics.

ROMAN PUNCH.—Grate the yellow rinds of four lemons and two oranges upon two pounds of sugar, add the juice of the lemons and oranges, cover it and let it stand. The next day strain it through a sieve, add one quart of good rum or domestic wine and the whites of eight eggs beaten to a froth. Put into bottles and place the bottles on ice.

SODA-CREAM.—Two and one half pounds of white sugar and two ounces of tartaric acid dissolved in one quart of hot water; when cold add the beaten whites of three eggs, stirring well, and then bottle. When using put two tablespoonfuls of this syrup into a glassful of ice-water, and stir into it one teaspoonful of lemon extract and one fourth teaspoonful of bicarbonate of soda.

### FIELD DRINKS

The following are old-time field drinks. They may be made in quantities, as they keep well if securely bottled:

GINGER-BEER.—Into two gallons of water put three ounces of ground ginger and two pounds of brown sugar; let this come to a boil, then simmer for half an hour, skim, and put into a jar with two sliced lemons and one half ounce of cream of tartar; when nearly cold add one cupful of good yeast. After it has worked for two days strain and bottle.

GINGER-MEAD.—Mix two quarts of boiling water, three and one half pounds of brown sugar, one and one half pints of molasses and one fourth of a pound of tartaric acid with one half cupful each of ginger-root and sassafras bark bruised and steeped in one pint of boiling water. Stir thoroughly, bottle, secure the corks, and keep in a cool place. Send to the field in the bottles, along with a jug filled with cold water, a package of bicarbonate of soda, glasses and teaspoons. Put one large teaspoonful of the mead into a tumblerful of cold water, stir into it one half teaspoonful of soda, and drink as soon as it "foams up."

RAISIN-MEAD.—Take two pounds of raisins, one pound of white sugar and about two gallons of boiling water, and add one fourth of a pound of tartaric acid. Pour the mixture into a stone jar, stir daily for six or eight days, then strain, bottle, and put in a cool place for ten days or so. Use as directed for ginger-mead.

MRS. W. L. TABOR.

## FRUIT PUDDINGS

CHERRY PUDDING.—Into three pints of flour sift two teaspoonfuls of baking-powder, and add a pinch of salt and one egg; stir all well together with one pint of sweet milk, then add the cherries, and put into a pudding-dish, and steam three hours in a closely covered steamer. Serve with hard sauce.

GOOSEBERRY PUDDING.—Fill an earthen or granite-ware baking-dish nearly full of stemmed gooseberries, and add sugar—lots of it—and a little water. Put into a bowl one cupful of buttermilk, and add one teaspoonful each of soda and salt, one tablespoonful of lard or butter, and stir in flour to make a batter stiff enough to spread smoothly over the fruit; bake in a moderate oven. Serve with sweet cream.

RHUBARB PUDDING.—Wash and peel some rhubarb, cut it into one-inch lengths, set it on the stove, with sugar to taste, and let it simmer until cooked; press it through a sieve, and leave it to cool. Boil one pint of milk with a bit of lemon-peel, a bay-leaf, and sugar to taste; stir into this, after removing from the fire, four lightly beaten eggs, then stir it all over the fire until it thickens; when cold stir this custard into the cooked rhubarb, adding more sugar if not sweet enough, and a little grated nutmeg. Make the custard quite thick, as the rhubarb is so watery. Put the pudding out in dessert-dishes, and after filling them heap each one with whipped cream, and set where they will get ice-cold.

MRS. W. L. TABOR.

## THE RED-LETTER DINNER

One of the many attractions of a famous old inn is its wide lawn. Here, under the tall, graceful, arching trees are placed numerous small tables, where luncheons, soft drinks and the inevitable cream are served in the fresh, invigorating air to bicyclists, pedestrians and tally-ho parties. The Country Club recently purchased the hotel, which is now called by the good old name of "The Tavern."

For this special occasion, a college-girls' dinner, the invitations were square, black cards printed in gay red lettering.

ALPHI PHI TO THEIR FRIENDS:

Care to our coffin adds a nail, no doubt,
And every joke so merry draws one out.

DINNER
The Tavern, May 4, 1901

The black represented "grim care," and the red indicated that this would be a red-letter day.

The menu was printed on scarlet satin ribbon inclosed in card covers tied with gay ribbons. On the front was the sketch of a coffin; a clever imp was rapidly drawing out nails from it—sort of a prophecy of the joys to come. At each cover was also a small handful of nails fastened together with a piece of wire. These were soon explained. Each guest must (emphatically) tell a joke. If the other guests deemed it rare and excellent one nail could be discarded from the story-teller's bundle a la coffin. Continued.

Eight courses composed the dinner. One of the distinguishing touches was a salad called "Felicidad," composed of chicken and mayonnaise dressing, served in a green pepper and garnished with small red beets.

Sherbet-cups were formed of clear ice, while white carnations tied with red ribbons served as the unique handles.

ADELE K. JOHNSON.

### JUST BE GLAD

Oh, heart of mine, we shouldn't
Worry so.
What we've missed of calm we couldn't
Have you know.
What we've met of stormy pain,
And of sorrow's driving rain,
We can better meet again
If it blow.
We have erred in that dark hour
We have known,
When the tears fell with the shower,
All alone.

Were not shine and shower blent
As the gracious Master meant?
Let us temper our content
With his own.
For we know not every morrow
Can be sad;
So, forgetting all the sorrow
We have had,
Let us fold away our fears,
And put by our foolish tears,
And through all the coming years
Just be glad.

—James Whitcomb Riley.

### THEIR HANDS FULL

It is sympathy rather than wealth that bears the world's burdens, and generous self-sacrifice is a virtue that may flourish among the poorest. A touching illustration of this truth came to the knowledge of a lady who left her address at a free employment-office and asked that a woman who could do house-cleaning be sent to her. The next day a small, tired-looking woman came.

"You don't look strong enough for such hard work as I want done," said the lady.

"Well, I ain't over and above strong," was the reply, "but I'll try to do the work well if you'll let me. I need the pay badly."

"Do you have a family to support?"

A ghost of a smile hovered around the other's lips. "I should say I had," she answered. "That is, my husband and I together have. He's working on half time now, and he don't make but seven dollars a week, and my hands are so full I ain't able to go out but two or three days a week, and we've nine in the family."

"Then you have seven children?"

"No, only four; but we had to take in an old aunt of my husband's or let her go to the poorhouse, and my husband went and saw just how she would be situated if they took her there, and he said she shouldn't go.

"You see, she took him in when his mother died, and cared for him as if he'd been her own child, and he ain't forgot it. She's nearly blind and almost helpless, but she tries to be as little trouble as she can.

"Then my mother lives with us, because she's no other place. It'd kill mother to go to the poorhouse, and she's not going while I live, if all of us have to live in one room. We've only four rooms now, and of course we're awful crowded; but we don't complain so long's we can have mother."

"That makes eight. Who is the ninth!"

"Well, it's a little crippled child of my husband's sister. She and I were just like born sisters, and almost her last words to me were, 'Jennie, don't let anybody take my baby away,' and I said I would not. Its father is dead, too, and I couldn't see the poor little crippled thing going off among strangers. And Jim, my husband, he says, 'We'll make room for it somehow, Jennie,' and so we have.

"It's got a spinal trouble, and can't stand, and never will; and it has awful bad nights, so I have to be up with it half the time; but I always say to myself, 'Poor little thing; it's harder for it than it is for me,' and I try to be patient with it.

"Then I've a baby of my own less than a year old that's real fretful: so you see that Jim and I have our hands full, ma'am."

"Your hearts are full," said the lady, with tears in her eyes; "full of that which, if everybody had it, would make this world heaven."—J. L. Harbour, in Youth's Companion.

### SAMMY'S IDEA

After Sammy had eaten his dinner he went out to feed the chickens, and he saw Peter Drew out in his garden.

"Halloo!" he shouted; "what are you going to do this afternoon, Peter?"

"Don't know," answered Peter, with a scowl; "'spect it's pick up apples."

Sammy laughed. "I've got mine all finished," he said, joyously. "I filled five sugar-barrels this morning. Mother says I'm a regular beaver for working. Did you work like a beaver, too, Peter?"

Peter sniffed. "I don't know nothin' about beavers," he said, crossly. "I sat on the stone wall most of the morning."

"Restin'?" inquired Sammy.

"Yep," answered Peter, and then he scowled again.

"I'm goin' nuttin' for my rest," said Sammy. "Nut-trees an' woods an' squirrels are heaps better for restin' than stone walls, I think."

Peter didn't answer.

"I wish that you could go nuttin'!" exclaimed Sammy, earnestly. "Do you s'pose you'd work like a beaver pickin' up your apples if another beaver should come over to help you?"

Peter smiled. "I might try," he said.

So over the wall jumped Sammy, and away to the orchard ran the two little boys; and oh, how fast they did work! I do not believe there ever was a fat, furry beaver who did his work any faster. And at last the barrels were filled, every one of them, away up to the tiptop. Not one single rosy apple was left in its grassy bed. And then off to the woods ran the two little boys, and somehow they both felt very happy.

"I think I'll make-believe I'm a beaver every day when I've got to work," declared Peter, with a smile, which was a very good thought, indeed.—Mayflower.

### A NEW HEART

I heard the missionary to the Indians in our Canadian territories tell how it felt to be in the grip of the death-freeze. It was seventy degrees below zero, and as the traces of the dogs that carried the sleigh across the black waste got broken, he jumped off to repair them. Perspiring with the exertion, he felt his garments suddenly stiffen, and a chill such as he had never before felt in his experiences in these high latitudes seemed to creep to his very bones. It was intensely cold, "and all at once," he said, music such as he had never heard seemed to descend from the skies. "Oh, it was rapturous music! Can the angels, with their heavenly harps, equal what I heard? The snow began to appear as if covered with the jewels that deck the city, and the twigs of the frozen trees seemed all kinds of colors. It was just fairyland. A sensuous delight, a physical pleasure, began to steal over the whole body. The marks of the Indian attendants who had gone before, the tracks left by their snow-shoes, got transformed into beautiful couches, and a voice said, 'Lie down and rest, and listen to the music.' I was looking round to choose the couch upon which I should rest, when I heard a soft voice say, 'Stop! you are freezing to death!' I had only time to take the rope that bound my dogs to the sleigh and bind it round me, attaching myself to the sleigh, and to say in the Canadian French to the dogs, 'March!' They started and dragged me unconscious through the snow, battered and bruised, but safe."

Ah, man! to freeze is sometimes just delicious. The devil takes care that the cold heart should never feel cold. He tells the birds to sing, and the flowers to bloom, and the demons to transform music. There is many a soul just freezing to death amid the pleasures of a sensuous religiosity that will only damn him forever. The human heart is a stone until God warms it and regenerates it.—Current Anecdotes.

### THE MOTHER'S LOVING EYES

One of the greatest artists tells a story of his school-days. He was the only son of a widow, and he was sent to a grammar-school, and only once a month could he see and speak to his mother. But she loved him so dearly, and so desired to be near him, that she took a house which overlooked the school playground, and every day when the boys were at their games she was watching at the window. He soon found it out, and from that time he was ashamed to do anything wrong or mean. He always thought of those loving eyes; they seemed to be watching him even in his chamber, and it helped to keep him straight and true. Boys! God's love is stronger than a mother's, and if we were to go to Africa or China his love would still follow us. He is always watching us. Let us not do anything that we cannot ask his blessing on. It seems a wonderful power, does it not, to know all and see all and hear all? One of the grand attributes of our Heavenly Father is his omniscience—that is, knowing all things. Another is his omnipresence—that is, present in all places. Another is his omnipotence—that is, possessing unlimited power.—National Advocate.

### FEAR NOT

In the west of America, at the foot of the Rockies, on the Pacific coast, there are very strange and very interesting gullies. Geologists go from all parts of the world to see them. You can sail for miles inland in narrow, canal-like creeks, great fissures in the Rockies, into which waves of the Pacific wind for miles right into the heart of the country. As the steamer goes into the narrow creek, behold, there seems right before you a precipice of beetling rock. Yet full speed is kept up. There is no reversing of the engines; it seems as if the vessel was steered to go to pieces on that frowning rocky crag. The captain is on the bridge, unconcerned; and the screws are churning the water beneath the vessel, and "straight ahead" you are going, when lo, just as the prow seems to touch the rock, and you wonder that they are not reversing the engines, the crag splits, and you see right at its base a waterway that would almost float the navies of the world nestling in the heart of the mountain. You never saw it till you went straight up to it. A timorous man would have turned, would have signaled to reverse the engines, to go full speed astern. It was faith, the faith of knowledge, the faith of having been there before, that made the steamer go right ahead into the cleft where it could go sailing through. Go straight on; God will provide for the difficulty.—Current Anecdotes.

### TO HEAVEN INCOGNITO

You will not be able to go through life without being discovered; a lighted candle cannot be hid. There is a feeling among some good people that it will be wise to be very reticent, and hide their light under a bushel. They intend to lie low all the war-time, and come out when the palms are being distributed. They hope to travel to heaven by the back lanes, and skulk into glory in disguise. Rest assured, my fellow-Christians, that at some period or other in the most quiet lives there will come a moment for open decision. Days will come when we must speak out or prove traitors to our Lord and his truth.

You cannot hold fire in the hollow of your hand or keep a candle under the bed. Godliness, like murder, will out. You will not always be able to travel to heaven incog. —Spurgeon.

### THE PIETY OF KINGS

The piety of kings may not be measured by that of a peasant of the same country and religion. The associations of the king necessarily are such as to bring him in contact with people and with duties that are entirely unknown to the peasant. It is said of old King Hal of Scotland that he daily passed a mill near his palace on the banks of the River Dee to hear the miller sing his happy songs. One day he paused and inquired the cause of his contentment. The miller replied that he loved his wife and friends and children three, and that he thanked the mill that ground his corn to feed his babes. To this the king replied, "Thy mealy cap is worth my crown; thy mill my kingdom's fee; such men as thou are Scotland's boast, oh, miller of the Dee."—The Christian Conservator.

### LITTLE SINS

You need not break the glasses of a telescope or coat them over with paint in order to prevent you from seeing through them. Just breathe upon them and the dew of your breath will shut out all the stars. So it does not require great crimes to hide the light of God's countenance. Little faults can do it just as well. Take a shield and cast a spear upon it and it will leave in it one great dent. Prick it all over with a million little needle-shafts and they will take the polish from it far more than the piercing of the spear. So it is not so much the great sins which take the freshness from our conscience as the numberless petty faults which we are all the while committing.—Henry Ward Beecher.

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# The Big-Footed Girl of the Brazos

BY WILL ALLEN DROMGOOLE

"I WOULDN'T mind being big and awkward and ugly and all the rest if it wasn't for my feet," said Bet.

Mrs. Seers, the nearest neighbor, who had stopped by on her way from the little town of Waco, twenty miles distant, held up her hands in horror.

"The land o' mercy!" said she. "And how would you make out without 'em in this here sun-baked, Injun-ha'nted country, I'd like to know? Time you've trotted over these prairies long as me you'll be wishing you was a centipede, mighty nigh, and that every foot was as big as a buffalo and as strong as a ox, and that you could onhook 'em and use one pair at a time, saving of the best pair for Sundays, maybe."

The girl laughed as she hooked her churn-dasher on the peg behind the kitchen door, where the sun and wind could sweeten and freshen it for the next churning.

She did not confide to her visitor that she had overheard a woman speak of her at the singing-school the week before as "the big-footed girl of the Brazos country," nor that the words had hurt her and had set her to casting up the slights fate had put upon her in not investing her with certain feminine charms and weaknesses which, until then, Bet had neither missed nor desired.

She was not given to complaining; she was something of a pioneer, and proud of the good strength and strong body which had fitted her for the self-imposed task of keeping house for her three bachelor brothers, who had pitched their tents in that promised land of bounty, the new state of Texas. She had crossed the mountains of Alabama and the prairies of the West to come to them, and had been happy in their growing prosperity, and satisfied with their love and approval.

Moreover, life on the plains wasn't all work and hardship. Over in the county-seat things were growing "city-like," and the village of Waco had two-story houses, with lace curtains at more than one window. There was silk in the stores, and the sheerest of lawns. And instead of old-time corn-shuckings there were singing-schools at the meeting-house on the Brazos; and there were debates and rabbit-hunts and quiltings and candy-pullings, to all of which Bet had been cordially invited, had cordially accepted, and very cordially enjoyed.

Since little Bess had come to them Bet had gone out less frequently, to be sure; for Bess was delicate and too young for the wild rides that were no more than a tonic to Bet. Sometimes when the nights were moonlight and the days long the big girl had ridden to Waco with the little girl perched up behind her on her horse, a basket of eggs and a bucket of butter suspended from her saddle, had bartered her produce for dry-goods, and ridden home beside her big brother at midnight, with Bess asleep in her arms, and had been all ready for her usual work next day. But lately she had felt her bigness to be unfeminine, though this was the first time her discontent had found words.

But the moment she had spoken she felt better; perhaps because good Mrs. Seers made light of the complaint, and was making light of it, for before Bet could speak again for laughing she went on:

"And as for 'ugly' Bettie Browser, that you ain't. I heard some o' the boys talking about the candy-pull, and they allowed you was plumb pretty. And my boy, Tim, allowed he hedn't set eyes on nobody as handy as you be, not since he left Tennessee; so there you are."

The big-footed girl dropped down upon the sun-lighted door-step to laugh.

"You are sure he didn't say 'footiest' instead of 'handiest?'" said she. "Look at that!" and Bet thrust forward a foot that was large and strong and able-looking, to be sure, even when shod in its own proper footwear. But with her brother's big, broad shoe, in which it was cased—as her feet often were when there was extra tramping to do—poor Bet did show a foot which she declared "was enough to shame a Comanche."

"Never mind," said the visitor; "never mind the bigness of the body, so the heart's big, too. Come on out to the wagin and get your goods. I must be moving. Thar's a passel o' them San Saba Injuns in town to-day; been over in Cherokee hunting. They was filling themselves up on whisky toler'ble pert, seemed to me, and I ain't caring to travel the road twixt here and my place in thar company. Whar's the boys?"

"They went over to Limestone bright and early to help the Simpson boys rope some cattle. There's to be a beef slaughtered after the roping, and Joe allowed they'd be late getting home. It seems sort o' lonesome without 'em, so me and Bess have been laying off to finish up the work and run off for a little pleasuring in the woods down by the river. It ain't far, and somehow it does me good to go to the river and to see the trees. It makes me think of home to hear the Brazos go whispering through the low grounds."

"Humph! makes me think o' snakes," declared the visitor, as she climbed into her wagon and began passing out the parcels designed for Bet. This accomplished she took up the reins. "Well, I've got to be moving; stopped to deliver at four places 'fore I got here. You know how 'tis when a body goes to town in the wagin. Now, don't you gals wander too far off, nor git so lost in water-gazing as to forgit to keep an eye on the road. Them Injuns over on San Saba ain't guilty o' no greater sin than laziness and filth when they're sober; but drunk they ain't much short o' fiends and wild animals. S'long; take keer o' yourse'ves, and if they bother you whip out the shot-gun and skeer 'em some."

Bet, watching the white-topped wagon pass on over the prairie, felt strangely alone and helpless. She was not afraid of the Indians on the Brazos; they were peaceable and harmless; but the tribes farther west, in the San Saba country, had not felt the softening influence of civilization to the extent of those living farther east.

The Indian village lay beyond the town some thirty miles, yet they had often passed that way seeking lost cattle or bound for a buffalo-hunt with the tribes on the San Saba River. She had seen them often, too, in the streets of the town of Waco, in their paint and feathers, but always peaceable and friendly and safe enough under the strong, restraining hand of the government. Now and then a straggler something the worse for whisky had stopped at the door to call "How?" from his wiry little mustang, and to relieve his emotions in a resounding yell. But it chanced the boys had been at home on those occasions and knew how to deal with the noisy intruders.

She shouldn't like them to find her there alone with only little Bess, the child whose parents had died while crossing the prairie, and whom the boys had brought home with them until some one should claim her. There were others of the party who told them the child's story: Her father was driving for one of the emigrants, who volunteered to carry the family west if the father would take charge of the team. But the man had died sitting bolt upright with the lines in his hand. The journey west had come too late for him. The mother, the child in her arms, had taken the lines the father had laid down; but three days later had, in her turn, laid them by and gone with the silent messenger. "Died for no reason in the world," the hardier emigrants told the young men, who had come upon them digging a grave by the roadside.

But when big, strong Bettie took the little girl in her arms, saw the pale, patrician face with the blue veins in the fair temples, she understood that the young parents, well-bred and of the gentler class, had found the prospect too hard for them, and had died of sheer despair. The child had been quiet, gentle, even helpful; the little feet had been willing enough, but to big Bettie they were mere "toys"—"doll's feet"—good only to be held in the hollow of her hand and laughed at.

Yet the shape and trimness of the little feet pleased her, and set her at war, too, with her own awkward "clodhoppers;" and as the child grew older and the little feet trimmer the big girl grew more and more to hate her own broad, flat members that grew broader and flatter in the rough boys' shoes that Bet would wear in spite of their efforts.

To-day her discontent had found words; she was ashamed of it, and she felt like getting away from herself and her small rebellions. She felt a twinge of homesickness, too, and wanted to get near to something that was like the land she had left—the river, the broad, red Brazos, and the live-oaks that rustled their green boughs the warm years through.

"Bess!" The child looked up from the doll she was dressing. "Get the boys' sombreros down from the nails and we'll take our little run to the river, anyhow, Injun or no Injun."

The child sprang to obey; she was as fond of the river and the oaks as Bet herself.

The big girl looked back under her tall sombrero as they were crossing the yard; the little house had an appealing look.

"I don't know what makes me uneasy," said Bet, "but somehow it don't seem quite safe to leave it."

"I reckon it was talking about Indians scared you," suggested Bess. "It made me all creepy, too."

"Yes, I reckon that was it," said Bet. "I'm not to say afraid of 'em, but I wish the boys were home. Now, then, clip it across this cotton-field—look out for the young plants—then the pasture, and lo! we'll reach the river." They crossed the long, greening field and reached the meadow and the dividing fence.

"Wait," said Bet; "let me over first and I'll help you. My! these rails fairly quiver under that foot! Hush! I heard horses—and a—yell. Is that dust? Back!

She stood on top of the fence and shaded her eyes. Down the road beyond the stream she could see through the trees a cloud of yellow dust. The cloud parted for an instant, and Bet saw, galloping straight down the road that passed them, not a hundred yards from the meadow fence, half a dozen painted, feather-decked figures yelling and lashing their ponies furiously as they made straight for the little house on the prairie.

"The big-footed girl dropped upon the sun-lighted door-step to laugh"

They had not seen the girls, and with a silent prayer that they might not see them Bet dropped from the fence, and whispered:

"Run—fly home! The Indians are coming! Drunk! They'll kill us here, sure!"

The little girl sped like a rabbit straight down the cotton row, with Bet close behind her. And behind them both galloped the savages, their drunken yells growing more and more distinct as they drove their ponies down to the water.

There they halted for their horses to drink, and with the screening oaks between them and their danger the girls made a bold dash across the field for the house. Once there—well, there was a rifle in case the savages decided to stop.

"If we live to get to it!" Bet told herself as she panted after the little flying figure of Bess.

Suddenly the little figure swung to one side, reeled, and dropped, with a low cry of pain, among the cotton-plants.

"My foot," she sobbed. "It—"

There was no time for more. Bet reached down almost without stopping, and lifting the child in her arms ran on.

As the Indians rode up from the water and into view Bet closed the door and bolted it behind her. They came straight on with a yell. Two minutes would give them ample time to break in the door.

The girl thought quickly and acted promptly. The little house had but two rooms and a shed-kitchen. The boys were building as they had time and money for it. In the absence of closets and store-room Bet utilized the loft above her own room for storing herbs and dry vegetables. The room was unsealed overhead, and the loft consequently without flooring of any description. The boys had tacked on the laths, however, expecting to plaster before cold weather; and above these, for the space of some six feet square, Bet had laid a bit of amateur flooring by nailing some rough boards across the rafters. This she called her "store-room;" to it she ascended by means of a short ladder placed against an opening cut through the laths, where, by and by, she meant to have a stairway down, as occasion required.

Bet knew that finding the brothers absent the Indians would promptly proceed to ransack the house. She trembled to think what further mischief they might do; but she knew they must not find her and Bess alone in the house.

She carried the child to the foot of the ladder and there sat her down. "Climb up," said she, "on your knees, and then crawl upon the boards, and be still as a mouse, while I get the gun and drag the ladder up. Look out for the lath and try not to make a noise."

Dragging her throbbing foot, little Bess, frightened and obedient, climbed to the loft. It was but a moment until Bet's big, round, welcome face appeared at the top of the ladder, and close beside it the muzzle of a shot-gun.

"I can't find powder or shot," she gasped. "The boys must a-took it to the roping for the beef-shooting afterward. But it felt better to have a gun, even if it wasn't loaded. Keep it there while I drag up the ladder. The gun hasn't been used for a year."

She smiled contemptuously as she placed the gun on the boards beside the child. This rusty, unloaded old weapon was their sole chance for life should the drunken Indians care to attack them.

But she had no time for lamentations; the lower end of the ladder had scarcely disappeared through the opening when she heard the Indians grunting and knocking, demanding admittance.

With a startled, quickly suppressed sob the little girl half rose to her knees; but Bet's strong left hand held her down until she had herself under control, and lay quiet and noiseless beside her big defender and comrade, while the Indians, laughing, shouting and swearing, were battering down the door.

She did not stir when the door fell in with a crash and the painted savages burst pell-mell into the room. But she set her teeth in her under lip and held to Bet's hand with a grip that was almost unbearable. With her free hand Bet sat holding the gun, muzzle down, her finger lying lightly against the trigger. Through the cracks between the laths she could see all that passed below. She saw one of the Indians pass into the kitchen, and almost immediately a grunt of delight announced that he had found the ham she had that morning boiled for the Sunday dinner next day. She saw him come, bringing the large chunk of greasy meat, into her bedroom, where the gang proceeded to pack it, with all the flour and sugar and coffee they could find, into the meal-sacks that hung upon the kitchen wall. They helped themselves to the butter that was to be sent into town on Monday and sold; and when they had taken all the provisions they could find, one of them seemed to be seized with a sudden recollection of something that had been familiar to him about the place.

He quickly communicated this to the others in low, broken English and Indian jargon. Bet could not catch what he said, but when the six of them began to rush about the house, looking behind beds and boxes, overturning chairs, smashing tables and dragging her clothes from their nails, it dawned upon her with sudden cold horror that the redskins were searching for her.

She saw one of them rush to the bed and with his long, bare arms turn the big, feather-stuffed ticking over and over; while another took her dress from the nail on the wall and began peering into it, as though she might be hidden there, while he kept demanding, "Gal! Gal! White gal!"

The "white girl" in the loft felt the blood tingle in her veins, and the finger on the old gun's trigger trembled. Oh, for one good charge! She heard the clock on the kitchen shelf clamor out the hour; she even counted the sharp, brazen strokes mechanically—"one, two, three, four, five!" Oh, if the boys would come—come before these drunken savages should find her hiding-place! They were in the cellar now, still demanding the "white gal." Now they were standing together in a huddle in the center of the room trying to decide where to search next.

The girl in the loft could feel her heart throbbing while the ugly heads below her bobbed and bent together in wicked plotting against her.

Suddenly the child lying at her side gave one short, sharp, quickly stifled sob, and instantly every red face was turned upward to the loft.

Herself too startled to be cautious, Bet sprang to her feet; the strong finger on the trigger closed like a vise, and with sudden, unexpected indignation the old forgotten muzzle-loader discharged itself with a roar into the very midst of the jubilant, grinning faces below.

There was a yell and a great rattle of smashing, cracking timber as Bet floundered into the laths; and to crown the confusion her brother's big, broad, cowhide shoe went ripping through and dangled threateningly above the heads of the surprised Indians, while a familiar, well-worn sombrero dropped through the opening the foot had made. Thinking the owner of the shoe and hat would drop upon them in another instant the savages broke for their ponies, and with a wild, drunken yell were gone like the wind across the prairie. They did not stop for their plunder, but rode as though half an army might be upon their track.

And Bet, before she even went down to inspect the damages, sat back upon her board perch and laughed until the tears choked her. Bess, thinking she was overcome with the fright, began to sob.

"Oh, Bet," said she, "I didn't go to do it. My foot hurt me, and I tried not to feel it, but the pain would come."

Bet leaned over and kissed the little wet face. "You saved us," said she; "that little sob saved us. There is blood on the floor, so one of them was stung, at any rate. That means they'll not come back. From the gait they were going they'll be on the San Saba before many hours. You just lie still one moment, now, till Bet can slip the ladder down, then she's going to doctor the poor little foot. It's sprained, that's what it is. I'll sponge it and bind it up good and tight. I feel like I ought to do something for this old clodhopper, too—give it a banquet or something. Anyhow, I won't abuse it any more—never. Suppose, now, it had been your foot that went through that ceiling, or any other girl's foot except big-footed Bet's, we'd been dead by this time. But, you see, it never entered the Indians' heads that it was a woman's foot coming down upon them. My! my! Won't the boys guy me! That foot'll be notorious in the Brazos country. They'll be saying 'Bet Browser's big foot put a whole gang o' savages to rout.' Or else, 'Bet Browser set her foot down on a whole tribe o' Injuns and squelched 'em.' Shouldn't wonder if they come miles to take the dimensions of it, and to see the old gun that went off when it wasn't loaded, like old guns always do."

And again Bet sat down upon the boards to laugh with Bess at the big foot which had been the means of saving them that day.

# "The Handsome One"

BY FLORENCE PERKINS

Scene—A veranda shaded by vines on two sides, long windows opening into library. Mildred Farraday sitting alone with work.

Mildred. I wonder if John came on the boat with Edith today. If so, he will surely call before night. How I dread what I must say to him! I wish now that I had been firm in my refusal two weeks ago, but he begged me so hard to think it over while he was away. Poor John! I hope he will not take it *too* hard. I am sure I am right; I feel that there is a career before me. I cannot give up my artistic ambitions to become a housekeeper, even for John. Dear old fellow, I hope he'll get over it some time! Of course, he will come to see me just the same! I can hardly imagine getting on without him, but I'm sure there's no need of that. Perhaps he will never care for any one else, and then we can always be the dearest friends, just as we are now. I suppose we couldn't do that if he had a wife. (*Puts down work and looks very serious.*) A wife! John! How unpleasant that sounds! I am sure she would be odious. But then John is very constant; I am sure he will not marry for a long time, if he ever does."

(*Enter by window at rear Miss Edith Tomlynne, in white wrapper.*)

Edith. There, I feel like another person. I didn't dress, for I must curl my hair first, and of course you'll have no callers so early in the afternoon.

Mildred. No, indeed; you needn't prepare for conquest for two hours. You haven't changed a bit, dear. I am so glad you could come at this short notice, and you must stay a month, at least.

Edith. I don't know; I'd love to, and if mama doesn't send for me I'll stay until your mother comes back. (*Seats herself in a low chair.*) What a lovely scene these vines make! You can see people coming ever so far, and they can't see you at all.

Mildred. Yes; aren't they beautiful? I hope you're not very tired.

Edith. I was a little, but am resting already. The trip up the bay is just perfect, especially after we pass Elephant Island. Oh, that reminds me—I had an adventure, or, well—perhaps not exactly an adventure, but it was amusing, and I think the men got off here.

Mildred. What men?

Edith. Do you know two young men, tall and dark, who look very much alike, except that one is only good-looking and the other really handsome?

Mildred. They must be the Brandons—John and Charlie.

Edith. Brothers?

Mildred. No; cousins.

Edith. They were coming from Elephant Island; it must be a gay place.

Mildred. Yes; they have been staying with some friends there for two weeks.

Edith. I hope you know them well. I am anxious to meet them—especially the handsome one.

Mildred. Y—yes, quite well.

Edith. They entertained me for some time on the boat.

Mildred (*surprised, rather coldly*). Indeed!

Edith. Yes; and I'm afraid I behaved badly. I really didn't intend to, but when I realized what was happening it was too late.

Mildred. How curious!

Edith. You see, I was up very early this morning, and it was so quiet on the boat with no one to talk to that I got dreadfully sleepy after awhile; so I asked the stewardess if I might lie down somewhere and take a nap. She rose to a small tip and showed me a state-room. I went fast asleep in five minutes, and the next thing I knew cigar-smoke and masculine voices were floating through the open window. I truly didn't think where I was or what I was doing at first, and then I coughed, but they didn't hear, and it was ever so interesting, and—

Mildred (*shocked*). You listened!

Edith (*apologetically*). Well, I put on my boots and brushed my hair and bathed my face and hands and then went out, but I couldn't help hearing what they said while I was there. Which is the handsome one?

Mildred (*blushing*). Oh—John.

Edith. Well, John is in love.

Mildred (*blushing more deeply*). Oh!

Edith. And she is the most outrageous flirt in the country.

Mildred (*angrily*). Edith, you go too far!

Edith. No; you would agree with me if you knew her. But the poor fellow thinks she is perfect. He said he never believed in love at first sight until he saw her.

Mildred (*faintly*). At first sight!

Edith. So he said. And the man that falls into Genevieve Wintrow's hands is lost—unless he is a bigger flirt than she is.

Mildred. Gen— What do you mean?

Edith. Genevieve Wintrow. She's staying where these men have been visiting. And she would flirt with an organ-grinder if she couldn't find any one else! Poor "John" was evidently deeply smitten, and the other was joking him about it. There appeared to be complications which I did not understand, but which concerned another girl. I gathered that the love-lorn youth was in some way bound to another, although it didn't seem to be an actual engagement. I am afraid that from what I gathered *he* is a flirt, too.

Mildred (*with effort*). I never thought so.

Edith. You never can tell. His cousin was trying to bring him to reason by reminding him of numerous other affairs which he had survived, but he declared he had never really loved until he saw Genevieve.

Mildred (*aside*). Other affairs! And he told me he never had given a thought to any girl but me! It doesn't seem possible that John can be so base. (*Aloud.*) Are you sure it was John?

Edith. I am sure it was the handsome one; I peeped through the blinds. I know it was horrid, but I couldn't help it. How he did rave about Genevieve! She *is* pretty—until you know her. "You said the same thing about the other only two weeks ago!" said the cousin. "Never!" cried John. "*She* is no more compared to Genevieve than a tallow candle to a star!"

Mildred (*aside*). A tallow candle! And he called *me* his guiding star!

Edith. Really, I became quite interested. I wonder who the other girl can be?

Mildred (*faintly*). I wonder!

Edith (*starting up suddenly*). Mildred, is that—do my eyes deceive me?—a *man* in the distance? He seems to be coming here. It looks like one of my fellow-travelers; is it—can it be the handsome one? I can't tell at this distance. Oh, he *is* coming here! I fly! Never will I display my straightened locks to him, especially if he is the handsome one. (*Exit through window to library; calls from within.*) Keep him if you can; I can curl my hair and dress in twenty minutes.

Mildred (*bitterly*). Coming for his release! I will never believe in man again! If it were Charlie—but no, Edith saw them plainly. A tallow candle! I *will* not cry. (*Bites lip and takes up work.*)

(*John Brandon enters, and comes forward with outstretched hands.*)

John. Mildred!

Mildred. Ah, you have returned!

John. Why, Mildred, will you not shake hands?

Mildred. Oh, certainly, if you wish. (*Gives tips of fingers.*)

John. What is the matter? What has happened? Why are you so strange?

Mildred. Nothing has happened—to *me*.

John. Then it's all right, for no one else matters—to *me*.

Mildred (*coldly*). How kind of you to say so!

John. Why, Mildred, I never heard you speak in that tone before. Why are you so freezing? Are you trying to keep me from asking you for the answer I was to have to-day?

Mildred. No! I will put you out of suspense at once. Pray do not consider me as a complication any longer. You are absolutely free, so far as I can make you so!

John. Then you refuse me finally?

Mildred. Most emphatically yes!

John. You might have done it more kindly. I will trouble you no longer; but before I go will you tell me how I have offended you so deeply?

Mildred. Why do you think you have offended me?

John. Because I find you so different—cold, sarcastic, unfriendly, where you have always been kind and sweet and gentle. Is it so hard to forgive a man for loving you?

Mildred. *Love* such as yours is hard to forgive, indeed!

John. You did not find it so two weeks ago. You were so grieved to hurt me, so afraid I would not understand your refusal. There were tears in your dear eyes as you put out both hands to me and said that I was always the nearest and dearest of all your friends. I could hardly keep from clasping you in my arms then; but I thought, I hoped—yes, I am not ashamed to own—I *proved* that you might in time realize that to no one else could you ever be so dear and precious as to me, and that you might let that friendship you promised should always be mine grow to something more. I loved you enough to wait and hope for years for your love. And you say it is hard to forgive me! If to love you be an offense, I dare not hope for pardon, for I have indeed sinned deeply. Good-by, Mildred. (*Goes to steps.*)

Mildred. G—Good-by! (*Catches her breath in a sob.*)

John (*hesitates, returns to her side*). Mildred, there must be some cause for this sudden change in you. There is a mistake somewhere.

Mildred. No, there is no mistake. I know all! If you are surprised in me, what must I be in you? You, whom I have always thought the soul of honor, whose constancy I never doubted!

John. You thought me so, and you think so no longer?

Mildred. Oh, this is too much! Did I not tell you I know all? Drop this miserable deception and go to her—to your Genevieve.

John. My Genevieve! Do you mean Miss Wintrow?

Mildred (*passionately*). Yes! Go tell her you are free; that the complications which made it impossible to declare your love are removed! The tallow candle withdraws forever from competition with the star!

John (*sternly*). You must be out of your mind! What have I to do with Miss Wintrow, and what do you mean by the tallow candle and the star?

Mildred. Oh, your flattering comparison reached my ears! I know of your love for Miss Wintrow and your fear that I would accept you, now that you have discovered you never loved me.

John. Mildred, let me speak!

Mildred. Oh, don't deny it! Don't force me to despise you! I know it! A dear friend whom I love and trust heard it from your own lips.

John. When and where?

Mildred (*defiantly*). This morning, on the boat.

John (*very coldly*). Ah, I see. Well, your dear friend has made one mistake. He doubtless did hear what you have repeated, but not from me. If your friend is given to eavesdropping he should take more care in identifying his speakers. May I ask if I have the honor of his acquaintance?

Mildred (*amazed and horrified*). John! It was—Charlie!

John. It was Charlie who was raving in his exaggerated way about Miss Wintrow; he was only half in earnest, too. Will you kindly answer my question?

Mildred. Yes—no—I think you don't know my friend, but she thought—

John. She?

Mildred. It was my mistake, my own stupidity; please try to forgive—

John (*relentlessly*). But how did she know me?

Mildred (*nervously*). Oh, she—she sort of described you, er—she said there were two of you who looked alike—

John. *Two* of me?

Mildred (*more embarrassed*). Oh, no; two young men talking together.

John. Then why were you so sure it was I who was Miss Wintrow's victim? Did it seem like me, Mildred?

Mildred. No; no, indeed! It was stupid, imbecile—I can't think why I did it, but I never thought of its being Charlie. Edith is not good at descriptions.

John (*dryly*). I should think she must be very gifted to make you so certain that I was the guilty party. What did she say?

Mildred. Oh, nothing—at least not much. I might have known it was not you. Please try to forgive me, John.

John. There is something you are keeping from me. What did she say?

Mildred. *Please*, John.

John. I must know; you owe it to me to explain. I have a right to know upon what evidence you so easily believed me guilty.

Mildred. Yes; but you will not insist! You are always so good to me!

John. Mildred, I do insist. You are not the girl to believe evil of me without a cause. Tell me.

Mildred (*aside*). How handsome he looks! Edith has very poor taste. I never could bear it if he loved some one else!

John. I am waiting.

Mildred (*faintly*). She said there were two young men who looked very much alike, except that one was only good-looking and the other was really handsome. And she heard you talking, and peeped through the blinds and saw which one was raving about Miss Wintrow.

John (*puzzled*). Well?

Mildred (*with averted face*). That's all.

John. All? Why, how— Mildred! You don't mean that you thought *I* was the handsome one?

Mildred. Charlie is so *very* plain!

John (*laughing and coming closer to her*). Charlie was called the handsomest man in our class. Mildred, there can be only one explanation for a mistake like that; such blindness can come only of—

Mildred (*putting her hands to her face*). Oh, let me hide my face! I am so ashamed!

John (*opening his arms*). Hide it here!

## EXCAVATION AND RESEARCH IN EGYPT

Egypt has been called an archaeological treasure-house. The description is strictly exact. The history of the past lies buried in its soil. Nature, which elsewhere makes war against the monuments of human labor, here seems to do its utmost to preserve them. In Upper Egypt, and to a less extent in Lower Egypt, frost is unknown and rain is practically absent, while the sand which has drifted over temples and tombs has sealed them, as it were, hermetically. Nothing, in fact, perishes except by the hand of man. The most fragile fragment of papyrus will last for centuries, while objects which were made and used two thousand years ago lie fresh and uninjured by the side of those of yesterday. The painted walls of the chambers built by Queen Hatshepsu at Der el-Bahari at least one hundred years before the birth of Moses looked as fresh and brilliant when they were found by Dr. Naville as if the colors had been laid on them but a week ago.

We have learned that nothing is impossible in Egyptian exploration. Surprise has followed surprise, each more startling and unexpected than that which had gone before. It is ten years ago since the cuneiform tablets of Tel el-Amarna were discovered, showing that the century before the Exodus was an age of the highest literary activity and intercourse; that the language and script of Babylonia were taught and used from the banks of the Euphrates to those of the Nile, and that the Egyptian province of Canaan was the center of the correspondence carried on in them. Since then M. de Morgan has found jewelry in the tombs of the twelfth dynasty which the modern jeweler would find it difficult to match—coronets and pectorals of gold inlaid with precious stones of the most exquisite workmanship and the most perfect art. Now has come a discovery which is perhaps more unexpected than any which have preceded it, and which certainly would not have entered into the wildest dreams of the Egyptologist a few months ago.

It is but recently that criticism has declared the very existence of King Menes, the reputed founder of the united monarchy and of the first historical dynasty, to be a myth. His name was said to have been the invention of a later date, and both he and his immediate successors have been banished to the realms of legend. Hardly was the ink dry on the pens of the critics before the spade of the discoverer came to upset their conclusions. The tomb of Menes has been found, and fragments of his body are now in the Gizeh museum.

Last spring M. de Morgan excavated a tomb on the edge of the desert, half an hour to the northwest of Negada. Negada is built upon the western bank of the Nile, and has long been famous for its Coptic monasteries. The tomb was built of crude bricks, and was of rectangular shape; it was divided into several chambers, in the largest and most central of which the body of its occupant had been placed. It has never been disturbed since the day when the corpse of the dead man was deposited in it and the tomb itself closed. But in accordance with the custom of the primitive period to which it belonged, the corpse and the objects buried along with it had been partially burned after the burial. This was a Babylonian practice which passed out of use in Egypt at least as early as the time of the third dynasty. The objects found in the tomb were various. Among them were lions carved out of crystal, the ivory foot of a chair in the form of the foot of an ox, vases of obsidian and alabaster, and the figure of a dog carved so exquisitely in ivory as to be equal to the best products of later Egyptian art. The obsidian seems to have come from the Greek seas; at all events, the nearest source of it to Egypt at present known is the island of Santorin, in the Aegean.

The name borne by the king buried in the tomb is found on several of the objects. But it is his ka-name; that is to say, the name given to him after his death. As classical writers have preserved for us only the names borne by the Pharaohs during their lifetime, it was impossible to determine to what particular king of Egypt the newly discovered sepulcher belonged. One of the objects, however, which has been disinterred is a broken plaque of ivory engraved with hieroglyphics. When the broken pieces had been joined together Dr. Borchardt discovered by the side of the ka-name the life-name of the Pharaoh. And this life-name is Men, or Menes. Menes is entitled king of Upper and Lower Egypt, and the system of hieroglyphic writing had already appeared in a fully developed form.

I have dwelt thus long on this latest discovery of Egyptology not so much because it is the last that has been made as because it illustrates in a striking way the possibilities of future research. It proves to us not only that Menes was a historical personage, but also that he must have come at the end of a long preceding period of history and culture; the arts and sciences already flourished in Egypt, the hieroglyphic system of writing was already established, and intercourse was carried on with distant lands. Instead of coming at the beginning of history, much more of belonging to the prehistoric ages, the foundation of the united monarchy in the valley of the Nile marked the end of an epoch, the civilization of which was already told.

The tombs of other kings of the first dynasty have been discovered at Abydos by M. Amelineau. They are built in the same style as that of Menes, and the objects found in them are also the same. Those of the kings have thus far been identified; the rest are as yet known only by their ka-names, and their identifications must therefore be left to the future. Like the tomb of Menes, the tombs of the first dynasty at Abydos have been partially consumed by fire. This was, as I have said, a Babylonian custom rendered necessary in Babylonia by the need of burying the dead among the cities of the living in an alluvial plain, and it points to a Babylonian origin. Still more indicative of Babylonia are the Babylonian seal-cylinders which characterize the earlier Egyptian dynasties. In Babylonia, where stone was not found and every pebble was valuable, nature itself suggested their use; their presence in Egypt, a land of stone and sand, can be explained only by foreign influence. As in Babylonia, so, too, in Egypt in the time of Menes and his immediate successors they were employed for writing upon clay; this again was a practice which could have had its origin only in Babylonia.

All this tends to show that Professor Hommel is right in deriving the historical Egyptians and their civilization from Chaldea. But it also confirms the story of the Old Testament. Here, too, we are told that the first civilized nations came from the East, and that it was from the plain of Shinar, or Babylonia, that mankind was scattered "abroad upon the face of all the earth."—Northwestern Christian Advocate.

## WHITE ROSES

BY DAISY WRIGHT FIELD

White roses, white roses! My lattice they twine,
With fragrance and beauty so chaste and divine;
With thorns all concealed in their clustering snow,
And white wings adrift on the green turf below.

But each waxen petal all 'broidered with dew
Is but to my soul as the blossom of rue;
And, in seeming, each thorn, like a poisonous dart,
Is pricking and pricking away at my heart!

For she loved them, she wore them, and in her bright hair
She twined them, and blushed that I called her so fair.
And oh, how they call back the hours that are fled,
Blest hours with my lost one—my love that is dead!

## A FIRST-CLASS GHOST-STORY

While at Monreale, the grand semi-Saracenic cathedral on the height behind Palermo, the author of the reminiscences was reminded of the experiences of a certain Knight of Malta in the church.

One night, by inadvertence, the Knight was locked in. Realizing his plight, he made himself as comfortable as possible and went to sleep. At midnight, awakening in the moonlight, the Knight saw approaching him from the west door a cowled figure in monastic robes, and assumed with satisfaction that he had been missed and that one of the monks of the adjoining monastery was come to seek him. As he watched the figure, however, he noticed a peculiar movement; it rather floated than walked up the nave, enveloped in its sweeping draperies, and as it passed the stranger heard a low, musical voice like a whistling wind, which said, "Is there no good Christian who will say a mass for my poor soul?" And the figure passed on swiftly behind the altar and did not return.

As the clock struck one the figure again floated up the nave, and again the same low voice murmured, "Is there no good Christian who will say a mass for my poor soul?" Then the Knight of Malta pursued the vanishing figure to a spot behind the altar, where it disappeared altogether. When the clock struck two the figure reappeared, and when it once more uttered the words "Will no good Christian say a mass for my poor soul?" the priest-soldier answered, "I will, but you must serve the mass; it is well known that there can be no mass without a server."

The holy vessels were upon the altar, and the soldier-priest began the mass. Then the monk threw back his cowl and displayed a skull; but he served the mass, which the Knight of Malta courageously went through to the end, but then fell down unconscious in front of the altar. In the morning, when the monks came into the church, the stranger was found still unconscious upon the altar steps. He was taken into the convent, and when he came to himself he told what had happened. Search was made in the archives of the monastery, but nothing was found to account for the occurrence. Long afterward, however, when some repairs were being made in the cathedral, the body of a monk in his robe and cowl was found walled up, evidently for some crime, near the altar, just at the spot where the Knight had seen him vanish.—Current Literature.

## WHENCE CAME THE NAME AMERICA?

That America derives its name from Amerigo Vespucci has long been regarded as a certainty. Now, however, a historian comes forward and assures us that this is not the case. This historian is Ricardo Palma, director of the National Library of Lima, Peru. He insists that America was not named after Amerigo Vespucci, but that, on the contrary, Amerigo Vespucci was named after America.

Senor Palma, who has studied this subject for years, maintains that Vespucci's first name was Alberico. "The name 'America,'" he says, "is derived from a place in Nicaragua, being the name of a hill in the province of Chanvoles. Furthermore, the penultimate syllable 'ic' is very often found in the words used by the Indians of South America and the natives of the Antilles. The syllable itself signifies something large and lofty, and is found in the names of non-volcanic mountains."

He further points out that Columbus did not use the word "America" in his letters when he referred to the events of his first voyage. "It is more than probable," he continues, "that he learned through one of his attendants of the discovery of gold by some natives in a place called America. In this way it is likely that the name gradually became known throughout Europe. At that time the only geographical account of the western hemisphere was the one by Alberico Vespucci, which was published in Latin in 1505, and in German in 1508. Geographers presumably came to the conclusion that Alberico had given the name America not merely to a single hill or mountain, but to the entire country.

"When the first map of the continent bearing the title 'Province of America' was published in Barcelona, in 1522, Columbus and his companions were long dead, and there was no one to protest against the misuse of the name. Furthermore, there was no one in all Europe who bore the name Amerigo, and as Vespucci's name was Alberico, geographers and historians would surely have given the new continent this name if they had desired to honor him in this fashion.

"Newly discovered countries were only named after sovereigns, as we see in the case of Georgia, Louisiana, Maryland and the Philippines, and when explorers did give names to countries they selected those of there own families, as we see in the case of Vancouver and Magellan. The origin of such places as Columbia, Columbus and Colon can also be clearly traced."—Bassett's Scrap-Book.

## AMERICAN AND OTHER TURQUOISES

"This country is now producing the bulk of the world's supply of turquoise, which is the most important of American gems commercially, the output being mainly from New Mexico, where the deposits have been worked at irregular periods for centuries," declares the "Manufacturing Jeweler." "Long before the time of Columbus the New Mexican mines were worked in a primitive way by the aborigines, and in these days the same stores of mineral treasure are yielding stones up to sixty carats in weight and of quality equal to the finest Persian. Two companies are turning out more than two hundred thousand dollars' worth of turquoises annually, and a guarantees is given to replace any specimen that changes color within six months. Turquoise owes its beautiful blue to the presence of phosphate of copper. For reasons not well understood the color is not always permanent, and to this trouble the Egyptian stones are particularly liable. Persian turquoises frequently alter, but the New Mexican comparatively seldom. The Persian stones are a softer blue than ours and more opaque; the Egyptians are darker. The aborigines of New Mexico took out the turquoise by building fires against the rocks so as to crack them, and thus get out the precious substance. The Egyptian turquoises, so called, come in reality from Mount Sinai. The highly valued Persian stones are obtained from Nishapur in the most primitive manner. A wooden wheel, operated by the feet of two men lying on their backs, brings the broken rock to the surface in bags, the fragments are smashed with hammers, and when a turquoise is discovered it is put aside and sent with the next batch of Meshed to be cut."

## THE MALARIAL MOSQUITO

Recent scientific studies point quite decidedly to the idea that malaria is usually communicated by mosquito-bites. Not all mosquitoes, however, are capable of communicating malaria. Only a single family, anopheles, has thus far been convicted of this nefarious business. But the family is a prolific one, forty different species being already known, of which ten have been recently discovered. There are four times as many species of the common mosquito, culex, however, so that we may consider ourselves fortunate that the insect with which we are best acquainted may generally be trusted to take his little drop of blood without leaving any horrible malarial parasite behind. It is a good thing, however, to know the difference between the harmless culex and the death-dealing anopheles. Here are a few of the differences: Culex stands square and level on all-fours, with his bill pointing straight down, while anopheles has the appearance of a dog sitting down on his haunches, and thrusts his bill straight out in front of him. Culex sings with a high note, while anopheles has a low, funereal sort of hymn.

There are other earmarks, but the above-named are sufficient to enable one to judge whether a particular mosquito which may be seeking to make his acquaintance is simply a hungry but harmless tramp or a midnight assassin.—Good Health.

## NOT BORN FOR IT

The author of "Walks and Talks" gives a rat-trainer's statement, in support of the saying, "Culture can increase the size, quality and flavor, but it cannot change the kind." After seeing different rats perform various feats the writer said to the trainer:

"I understand that you can't teach any rat to do anything you happen to want him to learn to do?"

"Oh, nein, nien!" the trainer replied. "You can't only deach a rat to do vot he vos made to do. Und ven a man is a goot rat-deacher he knows dot ding, und he von't dry to deach a rat vot he can't learn. Und dot is yoost der tifference between a goot rat-deacher und a shool-deacher," he added. "A shool-teacher, he dinks he can deach any shild anyding vot he bleases. But he couldn't do it! Shildren is yoost like rats. Some vill learn von ding, und some vill learn anoder ding, und dot's a goot shool-deacher dot knows dot ding, und vorks dot vay."

"Do you suppose I could ever learn to teach rats as you do?" said the writer.

The trainer eyed him a moment, and then said, "No, you couldn't do id. You vasn't der right kint of a man. Ven a man makes a goot rat-deacher he vos got to been born yoost on purpose for dot beezness, und I don't believe you vos born dot vay."—Youth's Companion.

## THE SHAH'S PEACOCK THRONE

Among the boundless treasures of the shah perhaps the peacock throne ought to be accorded premier place. It is probably the most costly ornament that the mind of man has ever conceived. The frame is entirely of silver, and above it the gleams of silver melt into molten gold. It is incrusted from end to end and from top to bottom with diamonds. At the back is a star of brilliants that almost makes the observer blind. The rug on which the shah reposes is edged with amethysts, and the pillow on which he reclines his imperial head is fringed with pearls. Some travelers, Burton among them, have estimated the value of the peacock throne at twenty-five million dollars. This is probably an exaggerated estimate, but experts say that half that sum would be near the mark.—London Chronicle.


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## ALONG ABOUT AUGUST

Along about August, when the breeze is gettin' lazy;
With hardly inergy enough to stir the clover-fields,
I get a feeling satisfied an' reckless as a daisy,
A-carin' nothin' 'tall about the fruits that labor yields.
I have had my share o' sorrow.
I have felt misfortune's touch,
But along about August
Nothin' seems to matter much.

I try to stir myself a bit a-tryin' after money,
But what's the difference, with warmth an' sky and flowers free?
I s'pose I ought to imitate the bees a-gettin' honey,
But, honest true, I'm mighty glad I wasn't born a bee.
You kin sing about your May-time
An' your merry Christmas tree,
But along about August
Seems the fittenest fur me.

I've never yit been called on to assume a lofty station,
But I'm purty proud an' hauty, as I may as well confess;
I'm proud to be a dweller on an earth whose fascination
So bountifully blossoms, even in the wilderness.
I know that I'll regret it—
I know it's wrong to shirk,
But along about August
I get 'most too proud to work.

—Washington Star.

## COMEDY AT THE FRONT DOOR

Some of the overheard colloquies on the door-steps of New York mansions are very amusing.

"Is your missus in?" asked a carriage footman of an indoor footman, with familiar jocularity, while his mistress sat in unsuspecting state in her victoria. "No, she ain't," answered the other, with a grin. "Well, I'm glad, and you're glad, and missus in the carriage is glad," exclaimed the facetious footman.

"Is Miss B— at home?" inquired a man of the new butler. "Are you Mr. X—?" queried the servant, half opening the door. "No; my name is Mr. Smith," said the caller. "Then she isn't at home," was the unblushing answer.

An English lord, who was rather noted for his density, went to call on a woman who had entertained him at dinner on a former visit to America. "Ask Mrs. S— if she will see me," he said to an old family servant who came to the door evidently in a state of great agitation. "Oh, sir!" exclaimed the old servator, with tears running down his cheeks, "my master is dying." "I didn't ask to see Mr. S—," replied the peer, testily; "I asked for Mrs. S—!"—New York Tribune.

## HIS PREFERENCE

The Lady Bountiful of the parish was going her rounds, and called at a small cottage occupied by a "model" peasant, whose wife had been an invalid for some years.

"And how is Mary to-day?" inquired the visitor.

"Just about the same, thankee, kindly, mem," was the reply.

"Did she enjoy those little things I sent her yesterday?" asked the lady.

"The things come all right, mem, an' we be greatly obleeged; but, if I might make so bold, would ye not send her any more of that jelly? Some jam—strawberry jam—be much more sootable, mem."

"Why doesn't she care for the jelly?" was the natural query

"Yes, mem, she do; but I can't say as I does." London Mail.

## THE MODESTY OF CHILDHOOD

Little Philip wanted to go visiting the other day. He longed to go to see Mazie, who lives nearly two blocks away. After a good deal of teasing his mother said he might go.

"And may I stay to lunch?" the boy asked.

"You may if Mazie's mother asks you to," was the reply. "If she doesn't, be sure to come home before noon."

Philip reached Mazie's house a few minutes later and galloped up on the porch where the little girl's mother was sitting.

"Mrs. Parker," he said, half out of breath, "I've come to play with Mazie all day, and my mother says I must not stay here to lunch unless you asked me to, but I ain't hungry yet."

He was invited to stay.—Record-Herald.

## BADLY MIXED

"We'll either have to get a new girl or a new iceman, George."

"Let it be a new iceman, then. What's the trouble?"

"This iceman is so good-looking that he makes Maggie nervous. Yesterday morning she got so mixed up that she tried to get him to put the ice in the stove-oven."—Cleveland Plain Dealer.

## DISPLAYING HIS KNOWLEDGE

At the closing exercises of a private kindergarten just before Christmas there was what the teacher calls a patriotic drill. It began with displaying a portrait of George Washington.

"Who is this?" the teacher asked.

Visitors were present, and of course the children failed to show off. They sat mute and unresponsive, till finally one little fellow piped up:

"I know who it is!" he shouted. "We got that picture at home. Mama told me who it is."

"Well, then, Adolphus," said the teacher, "you may tell us who it is."

Adolphus swelled with pride.

"It's our father from the country," he said.—Washington Post.

## SHE EARNED IT

"Oh, we had the loveliest arrangement at our church society last week! Every woman contributed to the missionary cause five dollars which she earned herself by hard work."

"How did you get yours?"

"From my husband."

"I shouldn't call that earning it yourself by hard work."

"You don't know my husband."—Epworth Herald.

## "SMOKING GLASS"

Pat was no astronomer, but next to his pipe he loved to be "up to date." A friend had been telling him about an approaching eclipse of the sun.

That night Pat sat on his door-step, patiently puffing away at his old pipe. He would light a

match, pull at the pipe, and then, as the match burned out, try another. This he did till the ground was littered with burnt match-wood.

"Come to supper, Pat!" called his wife from the kitchen.

"Faith, an' Oi will in a minute, Biddy," said he. "Moike has been tellin' me that if Oi smoked a bit of glass, sure Oi could see the shpots on the sun. Oi don't know whether Moike's been a-foolin' me or whether Oi've got hold of the wrong kind o' glass."—Cleveland Plain Dealer.

## EQUAL PARTNERS IN DISTRESS

"Can you swim?" asked the boy who was managing the sail-boat as a squall struck the craft and nearly capsized it.

"Not a stroke," said the passenger.

"Well, I guess we're about even, then. I don't know a thing about sailing a boat in a storm."—Chicago Tribune.

## PREPARATORY

Ethel—"Mama, don't you think women should know how to cook, so that they may be able to look after their husbands' digestion when they marry?"

Mama—"Certainly, dear."

Ethel—"Mayn't I go to the kitchen, then, and practise making butter-scotch?"—Brooklyn Life.

## HIS IDEA OF IT

Mama (to Bobby, just returned from an afternoon party)—"What kind of refreshments did you have, dear?"

Bobby—"Liquid."

Mama—"Liquid?"

Bobby—"Yes; us fellers all skipped out and went swimmin'."—Puck.

## NOISE WAS THE SAME

"Heavens!" cried Mr. Taffe, as he heard a terrific crash down-stairs, "there's Johnny exploding fire-crackers in the house!"

"Nonsense," said his wife, calmly. "That's only the new girl washing the dishes!"—Brooklyn Life.

## AFTER THE HOLIDAY

Mama (reprovingly)—"Gertie, did you tumble into bed without saying your prayers?"

Gertie—"Yes, mama! You see, I 'spected I'd be pretty tired to-night, so I said an encore after my prayers this morning."—Puck.

## THE MONKEYS AND THE GLOVES

There once lived in a wood a troop of monkeys. They tried as much as they could do to imitate man. One day one of the monkeys picked up a pair of gloves, which he took to his friends in the wood. One of them said, "I think man wears them around his neck." Another monkey said, "I think he wears them on his feet." At last a little monkey stood up and said, "I have seen man holding them in his hands, so I fancy they must be something to eat." At this suggestion each monkey took a piece and ate it.

Moral: Men who can only imitate other people will surely in the end do some ridiculous thing, as the monkeys did, and make themselves the laughing-stock of their neighbors.—Nashville Weekly American.

## DIDN'T SEE THE POINT

A Russian military paper tells of a lieutenant who heard a sergeant giving a recruit a short lecture upon his duties.

"The military service," said the sergeant, "requires little prayer to God, and a strict attention to the orders of a superior."

Somewhat astonished at this singular definition of military duty the officer ventured to ask the sergeant for his authority. Whereupon the sergeant produced an ancient volume containing the following:

"The military service requires little; prayer to God and strict attention to the orders of a superior."—Argonaut.

## GIVING HIM A CHANCE

"No," said Mr. Cumrox, gently, "I haven't the slightest objection to your asking my daughter to marry you."

"Thank you!" exclaimed the young man with a title, but no cash.

"You go ahead and ask her," he proceeded, thoughtfully. "I won't interfere. I have given her a good education and taught her to read the newspapers, and if she doesn't know enough to say 'No,' why, she doesn't deserve any better luck."—Washington Star.

## SHE WAS SATISFIED

Captious mother—"What do you want to marry that young man for? He doesn't know enough to set the world on fire."

Sensible daughter—"Maybe not, but he says he knows enough to set the kindling-wood in the kitchen range on fire."—Somerville Journal.

## LOOKING FORWARD

Daughter—"Yes, he proposed to me, and made me just shudder!"

Mother—"Why, he has a fair income, and is quite respectable."

Daughter—"Ah, but, mama, how could I intrust my whole fortune to a man so reckless and improvident as to want to marry!"—Life.

## HIS AGE

"Are you old enough to vote?" asked the tourist in North Carolina.

"I dunno erzackly what my age is, boss," replied the colored man. "But I kin tell you dis: I allus was old enough to know better dan to try to vote."—Washington Star.

## A JOSTLED EFFECT

Nan—"Kitty, what does the new bookkeeper look like?"

Kitty—"Well, he looks like a man who always had to put on his necktie while running to catch a train."—Indianapolis Journal.

## DISTRESSING MISTAKES

"A man can't be too careful whom he snubs."

"What do you mean?"

"Why, every once in awhile I've snubbed some plain people who afterward came into a lot of money."—Chicago Record.

## HIS REDEEMING QUALITY

Judge—"You were begging on the public streets, and yet you had twenty dollars in your pocket."

Prisoner—"Yes, jedge; I may not be as industrious as some, yer honor, but I'm no spendthrift."—New York Weekly.

## A DEFINITION

Seldum Fedd—"Say, Soiled, how do you define 'faith?'"

Soiled Spooner—"Aw! Dat's what enables kind old ladies to t'ink dey are doin' good when dey feed us."—Puck.

## "KEEPING EVERLASTINGLY AT IT"

Lady of the house (to peddler)—"If you do not go away I'll whistle for the dog."

Pushing peddler—"Then let me sell you a whistle, mum."—Tit-Bits.

## ACCOUNTED FOR

Lady—"Oh, how dirty your face is, little boy!"

Boy—"Yes'm; we hain't had no company fer more'n a week."—Judge.

## Hay-Fever and Asthma Cure—Free

Our readers who suffer from Hay-fever or Asthma will be glad to know that a positive cure has been found for these diseases in the Kola Plant, lately discovered in West Africa. The cures wrought by this new botanic agent are really marvelous. Among others the editor of the *Farmer's Magazine*, of Washington, D. C., Mr. Alfred Lewis, testifies that after many years' suffering, especially in Hay-fever season, the Kola Plant completely cured him. He was so bad that he could not lie down night or day for fear of choking. Mr. Wm. Kuhler, Sr., and son, of Warrentown, Mo.; Mr. C. E. Cole, Oradell, N. J.; Miss Mary Troy, Whitechurch, Ontario, Canada, suffered for years with Hay-fever and Asthma, but were completely cured. Rev. John L. Moore, Alice, S. C.; Mr. Frank C. Newall, Market National Bank, Boston, and many others give similar testimony of their cure of Hay-fever and Asthma, after five to twenty years suffering, by this wonderful new remedy. If you are a sufferer we advise you to send to the Kola Importing Company, No. 1164 Broadway, New York City, who, to prove the wonderful power of the Kola Plant, will send every reader of the Farm and Fireside who needs it a Large Case by mail entirely free. Hay-fever sufferers should send at once, so as to obtain the effects before the season of the attacks. It costs you nothing, and you should surely send for it.

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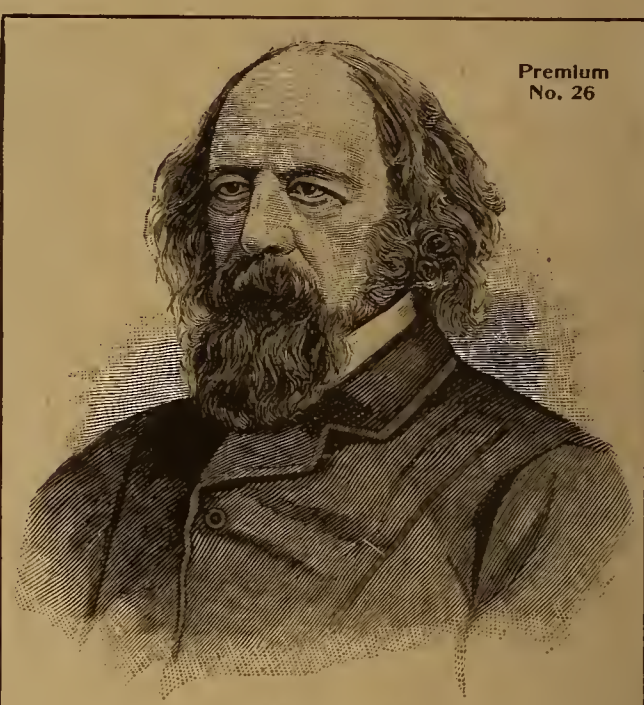

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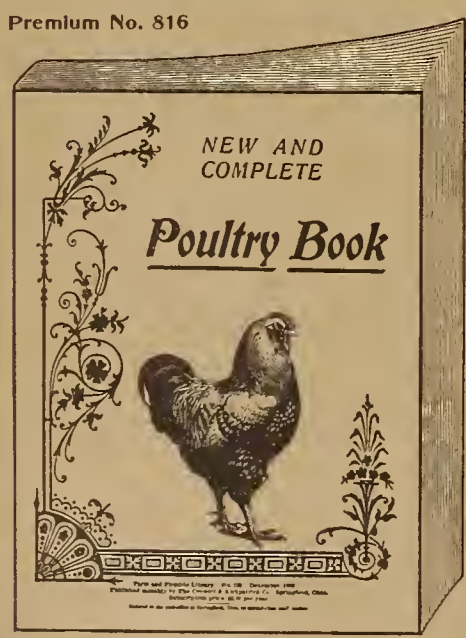


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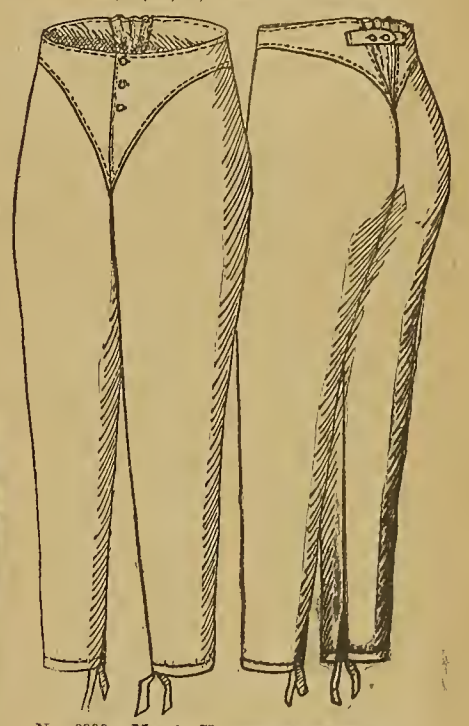

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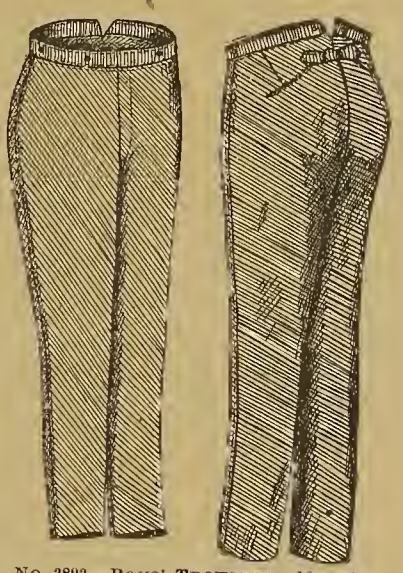

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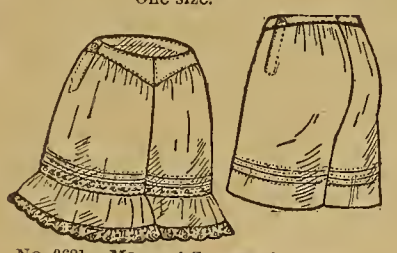

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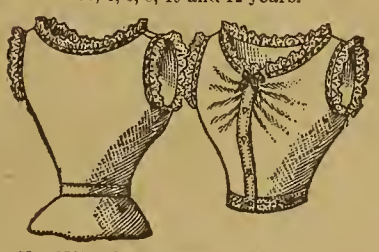

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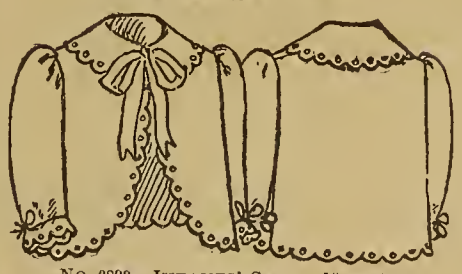

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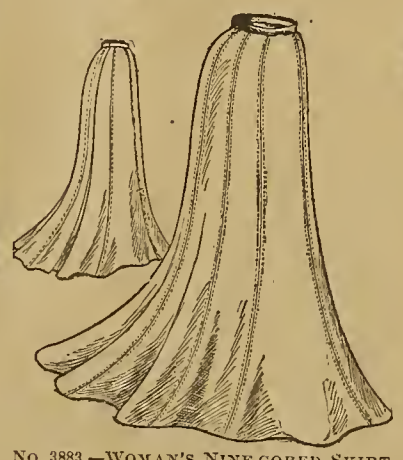

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No. 3888.—CHILD'S WRAPPER OR NIGHT-GOWN. 10 cents. Sizes, 2, 4, 6 and 8 years.

## FARM SELECTIONS

### SKIM-MILK CALVES IN THE FEED-LOT

FEEDERS find that the average skim-milk calf does not make profitable gains in the feed-lot, and will not buy him. Farmers find that the difference in price between an ordinary skim-milk calf and one that has run with the cow is frequently greater than the profits made from milking, and they drop dairy-work.

The Kansas Experiment Station during the past winter fattened one hundred and thirty head of calves for baby beef. These were divided into nine lots; one lot of ten had been raised by hand with skim-milk, and another lot of ten had run with their dams in small pastures until weaning. Both lots were put in fattening-yards at weaning, and were fed for seven months on alfalfa hay and corn. The results are as follows:

| | Average gain per head. Pounds | Feed for 100 pounds gain | |
|---|---|---|---|
| | | Corn | Alfalfa |
| Calves raised with dam | 435 | 475 | 472 |
| Skim-milk calves | 440 | 439 | 436 |

Corn cost forty cents a bushel and alfalfa hay eight dollars a ton, making the cost of each one hundred pounds gain five dollars and twenty-eight cents for calves raised with their dams, and four dollars and eighty-eight cents for the skim-milk calves. The calves when fattened were shipped to Kansas City, the steers in each lot bringing five dollars and forty cents a hundred and the heifers five dollars and fifteen cents. The packers paid the same price for the fattened skim-milk calves that they did for the others. In this trial the skim-milk calves made the greater gain, gains at the least cost, and made the most profit.

We attribute the good showing made by the skim-milk calves to the fact that at weaning-time they were already on grain feed, they did not worry at loss of their dams as did the other calves, and they were perfectly tame.

The skim-milk calves were fed until weaning on sterilized skim-milk, with a grain ration composed of equal parts of corn and Kafir-corn, with all the alfalfa hay they would eat. They were fed in this way twenty-two weeks, and made an average daily gain of one and one half pounds a calf. The feed to raise these calves to weaning cost five dollars and twenty-seven cents a head. As the results show, they were in good condition for feeding when weaned, and the experiment shows strongly the good feeding qualities of the skim-milk calf and the profits that can be made from it when the calf is properly handled from birth to weaning and then pushed for baby beef.

The college herd of scrub cows, bought without regard to their value for the dairy, produced in a year, at creamery prices, milk worth thirty-seven dollars and seventy-five cents a cow. The skim-milk calves which were fattened in this experiment were of mixed breeding, and were selected without regard to their value for the production of baby beef. They brought an average of forty dollars each when marketed at about one year old. This shows a gross income in a year from a scrub cow and a scrub calf of seventy-seven dollars and seventy-five cents, when both cow and calf are pushed, the cow's milk sold, and the calf raised on skim-milk.

The best cow in the scrub herd produced milk in a year worth, at creamery prices, sixty dollars and eighty-eight cents. The best calf in the skim-milk lot brought forty-seven dollars. This shows that a good scrub cow with a good calf could be made to bring over one hundred dollars gross income in a year. With large grade Shorthorn or Hereford cows of the dairy type crossed with a short-legged, thick-meated, blocky bull the returns from both cow and calf would undoubtedly be much greater, making the combination of dairying and baby beef very profitable.—H. M. Cottrell, in Bulletin Kansas Experiment Station.

### DIGGING-BAR

A light, easy-handled digging-bar is made by taking an iron pipe of the proper diameter and length and have welded on one end a steel point, letting it extend about one and one half feet up into the pipe, to insure strength. A piece of flat iron bent across the bottom end of your tamping-bar and fastened there by driving nails through holes in the iron will keep the stick from splitting, and will present a flat surface to the earth.

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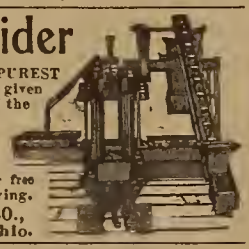

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FARM AND FIRESIDE.

Vol. XXIV. No. 23 EASTERN EDITION SEPTEMBER 1, 1901 Entered at the Post-office at Springfield, Ohio, as second-class mail matter TERMS { 50 CENTS A YEAR 24 NUMBERS

# Protected Crops, or Conquering the Soil

## "TWO WINDMILLS IN ONE LOT"

BY HEZEKIAH BUTTERWORTH

THE time of protected crops is at hand, and the "glass gardens" of New England and the irrigating windmills of Dakota but follow the suggestion of the most productive crop-raising abroad. The dike and windmill made Holland a garden, and one of the most beautiful of all garden lands of the world. Nowhere do flowers bloom brighter; nowhere do small plats yield more vegetables.

A Holland story is told of a man who acquired an estate with two mills on one lot. He caused one of them to be taken down, because there might not be wind enough for two windmills in one field.

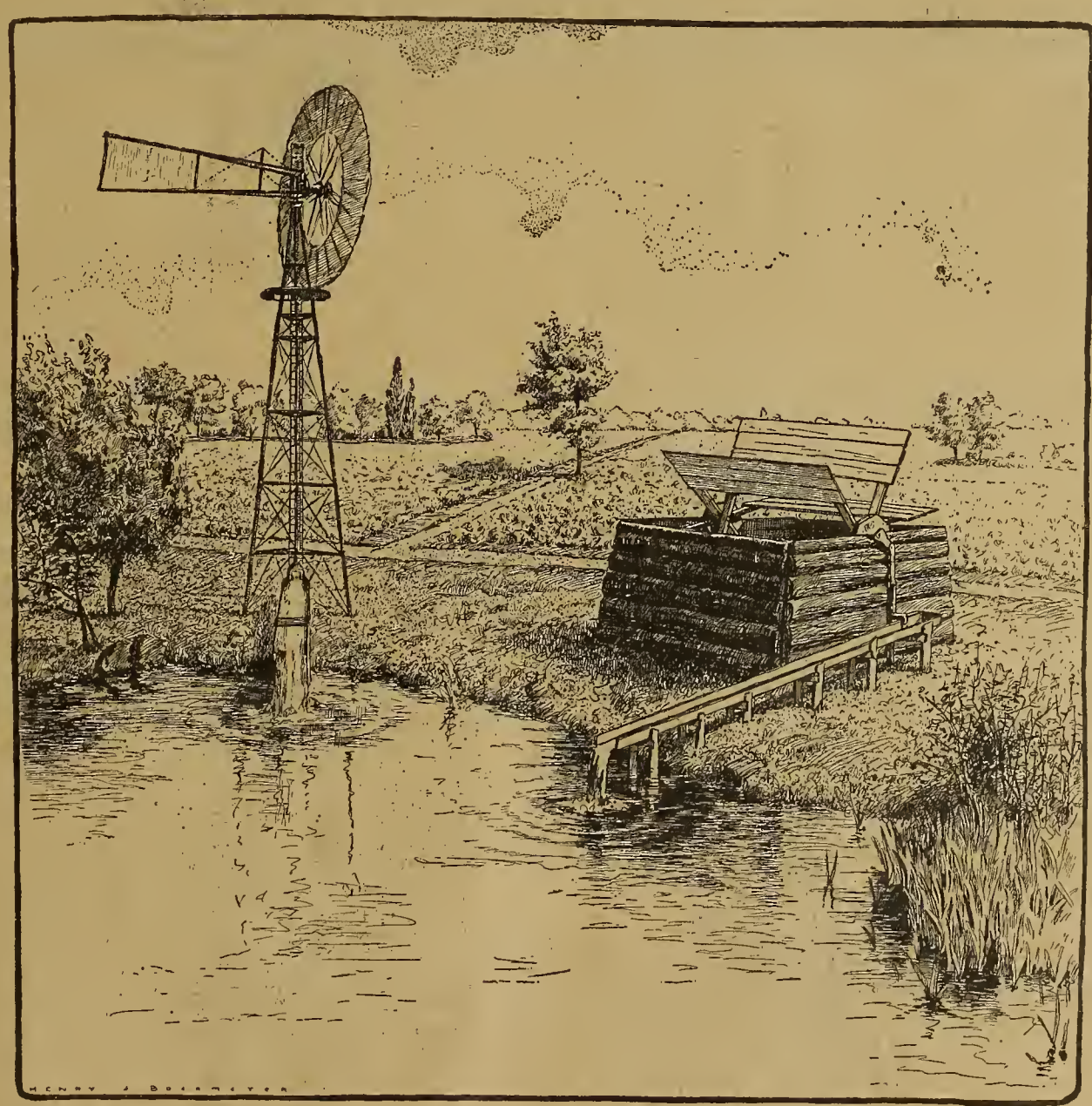
"Out West" there is wind enough for two windmills in a single field, and an irrigated garden even in the short season of the Dakotas will support a family. Thousands of toilers in the Northwest have gone into debt, mortgaged their farms, into which they had put their little hard-earned money, and lost all they had. Their crops failed for the want of water. "I could have succeeded had I had the means of irrigation," has been said thousands of times by the hapless, half-starved wheat farmer, as he turned back to some city to live in a few rooms of an apartment house, and to work for small wages, a slave to circumstances. A modern hydraulic machine or a simple patented windmill for raising water would have saved his crops, turned his fields into gold, made him a home in the pure airs of Nebraska or the Dakotas, and surrounded that home with cotton-trees, shrubs, vines, etc. But he had no means of securing such hydraulic power.

### THE DAKOTAS

Farmers rushed into the Dakotas and the Middle Northwest and raised a single crop of wonderful proportions. They saw a clear fortune for them in a few years in their mind's eye. They thought they saw how much money they could borrow on next year's crop. The East lent them money. The next year brought a drought; the "next" year a crop almost ready to harvest, but which suddenly shrank and withered for want of water. They must live; their families must be supported.

How they struggled and toiled, and wrote to their friends in the East for help, or perhaps to relatives in Europe! Their friends helped them for a time, and then inconsiderately lost faith. How those poor wives toiled and prayed and wept alone! How true these sufferings and disappointments made the whole family to each other! All that was needed was water—or the money to procure it. The needed water was running in streams just below the earth.

Certain farmers in Nebraska who could not get away or purchase expensive hydraulic power turned their attention to home-made windmills, such as would cost less than ten dollars, so at least to save the garden. They made little windmills of old machinery, with anything for fans that would turn the wind into service. One man favorably situated made the wings of his little mill of coffee-sacks, and irrigated five acres for five dollars. Some used barrel-staves with fence-wire; others turned roofing-tin to this service. A few years served to show the value of these home-made mills in many arid localities. The idea spread, the mills enlarged, when, presto, change, those who experimented with the little home-made mills had gardens, while those who did not had withered acres! Now a book has appeared on the subject. The traveler may see green gardens in many places over which curious windmills of home production are turning.



The agricultural experiment station in Nebraska sent out an observer among those windmill gardens. His published report is most interesting to young farmers in the Middle West. The home-made windmills offer new opportunity in garden-farming. It is one of the new suggestions that will help to bring a new order of farming to the true-hearted industrious young farmers of the Middle West.

There is room for "two windmills" in most of the fields of honest industry. Costa Rica protects her coffee; the United States of Columbia her cocoa-beans, and Florida is developing protected orange groves which will yield golden fortunes. Glass gardens are filling New England.

Wendell Philips used to say that there were two kinds of people in the world—one kind "went ahead and did something; the other kind showed how it should have been done in some other way." There are a multitude of people that reason that there will not be room for two windmills in the same field. There is room. "He can who thinks he can," and a purpose of success will make a way anwhere.

The writer spends his life in writing narratives of travel, and has traveled considerably, and one of the things that has greatly interested him is how people are protecting their crops in our own and other countries. The example of brave little Holland is being followed the world over, and the people who have the idea that two windmills cannot be run in one lot are disappearing. Let me give some examples of crop protection which I have seen by the way, beginning at New England.

### "GLASS GARDENS"

Some years ago there arose in Arlington, Mass., a glass garden. It was for the raising of cucumbers. It was remarkably successful. It grew and spread, and became almost a farm. It was imitated. One may see such gardens glittering along the old family roads around Boston; and near Fall River, on what is called Gardner's Neck, and near it one may see wonderful developments of New England farming under glass. There is a farm in Connecticut that has ten acres under glass. With what result? The protecting farmer will get a larger profit from an acre under glass than his grandfather did from a hundred acres.

### THE RECOVERY OF FLORIDA

Let us turn from the North to frost-smitten Florida. The protected orange groves are filling the state. Some of this protection is done by sheds with movable roofs, some by glass, and much by cloth tents, after the manner of protecting hay-cocks in a New England hay-field. In Marion County, Florida, lives a man by the name of Dolittle, whose name belies his occupation and enterprise. He saw the frost cut down hundreds of beautiful orange groves, and out of his Northern blood he resolved that his delightful trees should not be destroyed. He made frames for

[CONCLUDED ON PAGE 5]

# FARM AND FIRESIDE

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## WITH THE VANGUARD

COMMENTING on the world's parched crops the "Record-Herald" recently said:

"The drought which afflicted this country through July was no worse than the one experienced by Europe during the same month, and we have greater agricultural gains than the Europeans to offset our agricultural losses.

"Italy is the only country of the continent which is reported to have made good harvests. The French wheat crop is the smallest of recent years, having fallen to about two hundred and seventy-five million bushels, which is nearly one hundred million bushels less than the crop of 1899 and considerably less than that of last year. Other grain crops except rye are said to be below the average.

"Rye is the only grain that has done well in Austria-Hungary, and nothing has done well in Germany. Russia has suffered both from drought and storms, and earlier favorable reports from Roumania are now discounted. Spain, which started well, also was badly scorched, to the great injury of growing grain.

"In Great Britain the damage is indicated by a summary in the London 'Times' which, taking 100 for the average year, gives this year's percentages on agricultural products as follows: Wheat, 87.6; barley, 77.3; oats, 77.1; beans, 80; peas, 79; potatoes, 85; roots, 76; grass, 65; hops, 87. The lack of feed has hurried cattle to market, where they have been sold in the glut at low prices.

"Our big loss is in Indian corn, and if present estimates are correct it must be a serious one. In an article for the 'Record-Herald' B. F. Snow said the prospects were for a crop much below one and one half billion bushels. This would be the smallest one in many years, and if the worst fears are realized the total may not be much more than half that for 1899.

"On the other hand, the outlook for wheat is most encouraging. The crop is likely to exceed that of last year by two hundred million bushels, and to reach a total of seven hundred and twenty-five millions, the largest on record. Under these conditions there will be an enormous quantity for export, since we were able to export one hundred and thirty-two million bushels last year."

IN A recent interview by the Washington "Star" Secretary Wilson made an interesting statement about our food products, which reads in part as follows:

"One of the principal objects which this department has in view is to enable the people of the United States to produce the agricultural products we are now purchasing from foreign countries. During the year 1900, for instance, we bought half as much agricultural goods as we sold; that is to say, we sold about $844,000,000 worth and bought about $420,000,000 worth. The principal product we purchase from other nations is sugar. This commodity comprises nearly one fourth of the total of products imported. The department in the past has been making experiments to ascertain in just what sections of the country sugar can be raised to such advantage as to obviate the necessity of going to foreign markets to complete our supply. We want to raise beets, as therein lies the principal source of the sugar product. Within the United States there will be over forty beet-sugar factories in operation by next fall. They will be situated in almost every state along the northern border, from New York to California. I believe that within a few years we will produce all the sugar we require, and we will then be in position to ignore the foreign product. Our experiments have shown that the sugar produced from our quality of beet is much richer than that manufactured in foreign countries. Our product, therefore, will be much more desirable.

"When this result shall be attained the sugar trust will, in my opinion, vanish, for the reason that the trust refineries import brown sugar, while all the American factories will finish the product and place it in entire readiness for sale on the markets.

"We are now succeeding admirably in the production of tea in the United States. It is only a question of a short time when we will be able to raise all the tea demanded for use in this country. The two tons of tea grown at Summerville, S. C., last year so well satisfied the New York investors interested in the industry that they immediately formed a syndicate and bought six thousand acres of land in the state, upon which tea will be grown. This department last year sent tea-plants to every Gulf state in the Union, from the Carolinas to California, for experimental raising. We have just heard from South Carolina that imported machinery in use there is able to make green tea from the black product in one hour. We do not yet manufacture such machinery in this country, but we will get to that later. Then there is no question concerning the availability of labor when we get to growing our tea on a large scale. There is any number of young people who will seek employment as pickers of the leaves, as wages will be good. We are now importing plants from China, Ceylon and Japan, and we purpose raising the highest grade of the product in this country."

IN A timely address to the New Jersey State Horticulture Society Professor Vorhees said:

"Irrigation in the eastern sections of the United States has not received the attention that seems to be warranted. The fact that crops suffer beyond recovery, even though the dry period is comparatively short, is not fully appreciated. The total rainfall for a period of a month or two months may be sufficient to provide the moisture necessary for crops growing during that time, without taking into consideration the fact that in the period there may have been a time, longer or shorter, during which, on many soils, plants have suffered severely. The fact that four inches of rainfall is recorded for one month in the growing season is not in itself sufficient evidence that plants may not seriously suffer and crop production be reduced, since in many cases showers of short duration have resulted in a rainfall of from one to three inches, and yet the fact that so large an amount has fallen in so short a time is in itself sufficient evidence that it could not have been fully absorbed by the soil, or even in any great degree. The available water for the growing of crops, under uniform conditions of evaporation, therefore, is not measured by the total rainfall.

"In the next place, because droughts are likely to occur, and because attention has not been drawn in a practical and striking way to the actual losses that do occur from lack of water, efforts have not been made to determine the possibilities of such a line of practice. It can be shown from records carefully collated and comprising but three years, that in two seasons out of the three, with abundant and well-distributed rainfall, the yield of hay is more than two and one half times as great as in the third year, when the deficiency of rainfall covered a period of less than two months; and that in forage crops, where the deficiency of rainfall covers a much shorter period, the yields in the good seasons are from seventy to over one hundred per cent greater in the good years. It is a common saying among farmers when, for example, the potato crop is poor, that 'there was a dry week during the period when the potatoes were setting.' The cause is clearly understood. It is not that the average rainfall has not been shown to be insufficient, it is because for a short time only, and at a critical time, the necessary water was not to be obtained."

## THE ON-LOOKER

I SEE that Mr. Phillips, the Chicago dealer in grain who has been so friendly to good corn prices, is out with a proposition for the formation of a sort of a farmers' trust. He disclaims any exact knowledge of the conditions affecting the production of many farm crops, but believes that he knows about the production and distribution of corn, and he indicates a plan by which corn prices should be controlled within certain limits, trusting that the plan may be feasible for all leading farm products. It is based upon the alleged fact that the price of corn is depressed below true value by the forced marketing of a minor part of it early in the season, due to the necessities of farmers who are unable to hold, and the remedy is found in advances to such holders by a big producers' bank whose capital is provided by a self-imposed tax of one cent a bushel on the crop, which would gladly be furnished by all in order that the price might be kept above a certain amount a bushel.

All of us like the gentleman who is back of this proposition, and the friendly feeling is due to his disposition to believe in good prices for corn and to engineer movements in the grain market that cause grain to advance. We may have serious objections to the speculations that involve large dealings in grain that does not exist, and we may denounce the manipulators as gamblers and enemies of morality, but when a leading operator separates himself from the great company of "bears" in the market who have depressed prices of late years by their lack of faith, and when he boldly leads movements for the advancing of prices, we forget our denunciation of manipulation, or find justification of it when turned against those who depress our prices. We are distinctly human, and if our prices are to be chased up and down by speculators we not only rejoice in the presence of an element that has the courage to enter the lists against the old dominant bear clique, but have a hearty sympathy with its leader that nearly undermines our prejudices against the fraternity that buys and sells our products at their own prices before the harvesting is done.

This disposition to see the sinfulness of our enemies and the righteousness of our friends is no new thing, and I do not care to disclaim it in myself. The judge on the bench, trained to lay aside the prejudices of the advocate so far as this is possible, will not trust himself to sit in a case that has a personal interest for himself. Then why should I affect an attitude untrue to fact? Indeed it is the ability to see the good qualities of intimates, and to fail to see their unpleasant ones, that make association so rich in joy. But virtues are relative, and it is by comparison that our friends must prove superior. Herein the faults of those who may oppose us afford a helpful contrast to the virtues of those associated with us, and the temperament of the advocate, and not of the judge, adds wonderfully to our daily pleasures.

There is one sure result of all this agitation concerning the control of grain prices that is detrimental. However much we would enjoy the success of a scheme to render us less helpless before the mighty "bears" of our market, the discussion is serving to introduce to the public the facilities for dealing in futures in the grain market, and to-day, as it seems to me, more money from the country is being ventured and lost in grain gambling than ever before. It is not possible that residents of country districts can get favorable or unfavorable crop news as quickly as the city traders with their machinery for news-gathering, and they truly become "lambs," or subjects for fleecing. An occasional winning stirs up the gaming instinct that is natural to mankind, and the habit of venturing feeds upon winnings and losses equally. If a winning is made, another venture is taken; if a loss, a desire to recoup is unfailing so long as the money lasts.

In various cities I have whiled away an hour watching the quotations of stocks and grain as they were recorded every few minutes on the brokers' blackboard. The feverish interest of those buying or selling options is an object-lesson of value to a sane man. It is exactly that of a room fitted up with tables for roulette and hazard. In a gambling establishment that is run honestly, if that term be applicable to any of their dealings, a certain percentage of the chances is openly in favor of the house, but beyond that the chance of winning is equal to that of losing. But in grain-dealing not only the percentage—the commission on the fictitious purchase or sale—is against the country speculator, but the inside information about crops, and the weight of millions combined to control prices temporarily regardless of crop conditions, are factors against the man in the country. There was formerly a big hue and cry because a Southern city bled the country with its lottery, but the contributions of the country money to the pockets of city manipulators of grain markets dwarf the operations of any lottery into insignificance.

Some teachers of ethics lay great stress nowadays upon the necessity of doing right "from choice," arguing that it is only through unfettered choice that virtue can be developed. Abstention from wrong-doing, due to gross fear or to lack of opportunity for sinning, is no virtue at all, we are assured, and it follows that we should cease trying to drive evil out of the world, and should rather teach ourselves and others to profit by its existence in developing the power of resisting temptation. It is a pretty theory, but not one we accept when influencing the companionship of our children. It does not appeal to us in the day of trouble. In American life the disposition to hazard money for chance of winning is incentive. In the last few years it has become a mania. A few men well placed have reaped the reward, and there remains to the others who have played the game little more than a feverish desire to risk more money in an effort to recover losses of the past. O—L.

# RURAL AFFAIRS

**Horns or No Horns** It is just at this time of the year—namely, during late summer and fall—more than at any other time that I wish for hornless cows. Notwithstanding all efforts which I make to keep the animals covered with a fly-repelling mixture, flies will torment them. My cows are the gentlest of their kind, yet whenever I have occasion to tie them in the stalls, or otherwise work about their heads, I have to be very careful and on the watch for sudden motions of their heads made in their efforts to drive flies from their flanks. Painful wounds may easily be inflicted in this manner. Lack of courage has prevented me thus far from resorting to the now common process of dehorning, by sawing or cutting the dangerous and useless horns off. The cows I now have are probably going to their death with horns on. But I have resolved to raise no more cows with horns. For some reason I have always doubted that it was practicable to destroy the horns of young animals by means of the often-recommended caustic potash. In the last report of the New Jersey Experiment Station, however, this method is called "the simplest and most humane way of destroying the horns of animals," and described as follows: "The hair is clipped away from the young horn, so that the potash may come in immediate contact with the parts to be treated. The stick of potash is rolled up in a piece of paper, so as to leave one end exposed. The exposed end is moistened slightly, and rubbed on the embryo horn for a few seconds, or until the skin begins to start, care being taken that the whole of the border or matrix is included in the treatment. A surface about one half inch in diameter will cover the parts in calves a few days old."

**The Fly Pest** "A full stomach." That was the reply given me by Mr. Van Alstyne in the dairy-barns of the Pan-American the other day when I asked him what he considers the best remedy for the flies which torment our cows. In some measure he is right. All outside applications which I have as yet tried afford only temporary relief. For a while the pest is kept off more or less, but the applications have to be very frequently repeated in order to do much good. This talk of keeping flies off our domestic animals by spraying them once or twice a week is all bosh. I spray them three or four times a day, and that very thoroughly, using a mixture of kerosene, oil of tar and crude carbolic acid. Most animals in pasture, if not constantly sprayed, must keep in constant motion to keep flies off. This consumes energy, and where pastures are short deprives the poor critters of the chance to get proper nourishment. To feed and rest in the stable during the day, and allow them to pasture during the night, unmolested by flies, is surely a good method.

**American Beet-sugar** For many years (as the columns of FARM AND FIRESIDE can testify) I have been a firm believer in the future of the American beet-sugar industry, and this at a time when the idea that America could ever seriously compete with Europe in sugar-making was much ridiculed. A few days ago I visited the exhibit of the beet-sugar industry of the United States found in one of the galleries of the Agricultural Building of the Pan-American. This exhibit is under the charge of M. E. Gilmore, of Nebraska, who is ever ready to give full information about every phase of the beet-sugar industry, as well as about sugar-beet growing, to people interested in the subject. The exhibit also contains a model of one of the beet-sugar factories now in successful operation all over the Union. It is a singular fact that the belt in which sugar-beets can be grown in America successfully is twenty times larger than the sugar-cane belt, and comprises by far the greater portion of the United States, possibly four fifths. It is claimed that fully three fifths of the sugar made in the entire world, is made from beets. You will think it quite natural that I take more than a common interest in the development of the beet-sugar industry in America when I tell you that the inside and surroundings of one of the large beet-sugar factories of Germany were my legitimate playground for weeks of every year during my boyhood days. The exhibit contains sugar-beet seed from various sources, crude and refined sugars, syrups and by-products. Among the last mentioned is a sample of evaporated beet-pulp, now offered as a dairy food.

**Bees and Honey** Right close to the beet sugar exhibit, in the same gallery of the Agricultural Building, is the exhibit of bees and honey—and a most interesting exhibit it is. A portion of the honey in the cases was made by the bees on exhibit themselves, and here we find some of the very choicest quality—clover honey white as snow—that is to be seen anywhere. I have a little that can match it. In this exhibit are shown some excellent hives, sections and other fixings. The bees in this exhibit probably had splendid pasture right along and a better chance for making honey than ten out of every thousand colonies anywhere. Within easy reach are city lawns that are kept green by frequent watering from the hydrants, so that white clover thrives the whole season long. Then there are hundreds of acres in vacant lots densely covered with sweet clover, and yielding honey for months.

**Linden, or Basswood, for Honey** One of the best plants for honey is the common basswood, or linden. It seldom fails to yield honey in great profusion, its only fault being the shortness of the blooming season. Usually this lasts only a week or ten days. Within a few rods from the house I have a European linden, planted in 1889. It was full of bloom again this year, and, as last year, its blooming season was fully a week later than that of the American linden, or basswood. My bees worked on this tree in full force long after bees had ceased to work on any of the native basswoods. Now I would like to know whether this late-blooming habit is common with all the European lindens or whether it is that of an individual tree. It seems to me of importance to the interests of our beekeeping friends to see clear on this point, and then, if it be found that the basswood honey season might thus be prolonged for a week, to plant European lindens with the native basswood just for that purpose. Have any of our friends had experience with the European linden? Who will enlighten us?

**Wheat and the Hessian Fly** The Hessian fly has been a great pest again. Many of the fields around here were about utterly ruined by it, and most localities suffered more or less from its depredations. It is strange, however, that the fly should work on some varieties and leave others almost untouched. If the report came from almost any other source besides I. P. Roberts, director of the Cornell University Agricultural Experiment Station, I would feel like investigating further before believing. But here it is, and we must accept it as gospel truth, namely: "We are raising Dawson's Golden Chaff, which has not been infested with the fly, although the fields on three sides of us of other varieties of wheat are nearly destroyed. A few years ago I visited (several times and several years in succession) the trial-grounds of the experimental farm at Guelph, Ontario, and there I found, among the tests of greatest interest, beds of the various kinds of grain. At the time I mentioned the Dawson's Golden Chaff wheat (in these columns) as the most promising of any of the wheat varieties. The experimentalist recommended it earnestly as the most productive variety under test. He gives the following description of it: "Quite distinct from all other varieties grown; heads bald, color of grain white. The straw is medium in length, and the crop has a golden appearance. Unanimously pronounced the most attractive variety at this station by five judges who examined the standing grain." Seed-wheat can be had at about one dollar a bushel, and our readers should not be induced to pay fancy prices.

T. GREINER.

## SALIENT FARM NOTES

**Corn** The great drought of 1901 will serve to teach many farmers that it is not safe to put all of their eggs into one basket. Thousands of farmers were becoming specialists; that is, they were beginning to grow one crop to the exclusion of all others. Many had decided that corn is the most profitable crop that can be raised in the so-called "corn belt," and either were growing or were preparing to grow that one cereal exclusively. In many sections of the drought-stricken area those who had adopted corn as their specialty find themselves well-nigh stranded. The long drought practically ruined the crop, and all they will get out of it will be a little fodder. They will have no grain of any kind. Oats, wheat, barley and rye were too early for the drought, and those who had fields of one or more of these have a supply of grain that will enable them to hold their young stock, to feed their working animals, and to carry over a full number of breeding-stock, cows, sheep, hogs and fowls.

**Oats** While there is no question that corn is the best-paying crop that can be grown in the great "corn belt," the possibility of a partial or complete failure of this great cereal should be sufficient to induce farmers to sow oats, wheat, rye or some other crop on a portion of their land. In many localities oats fail to yield a profitable crop except in favorable years. They are stricken by rust a few days before ripening, the grain withering and the straw softening, so that they fall of their own weight. If the crop is carefully watched at the critical period the first indications of rust may be noted and the crop cut for hay before injury is done. Those who have never fed oat hay do not know what a splendid feed it is. Cattle and horses will eat every spear of it and do better on it than on good timothy. Sheep eat it ravenously. It should be mowed like grass, cured and put up like hay. I have seen fields of twenty to forty acres of oats allowed to go to waste because they were rusted and the grain shriveled to chaff, when the entire lot might have been saved and converted into the finest hay one could wish by cutting when the first indications of rust were apparent.

**Cow-peas** I had some cow-peas well started before the present drought became severe, and they have made a good growth. When the soil was as dry as powder and the temperature one hundred and over they would look rather limp from about eight A. M. to nearly sunset, then they would straighten up again and by morning be looking first-rate. I sowed another lot after the drought had fairly set in, and they came up, grew about four inches, and stayed there. They are not more than four or five inches high at this time (July 27th), but they are looking lively and only waiting for rain to jump upward at a lively rate. Farmers who live on land that dries out quickly should make sure of some early crop for feed. I have never seen a season that was so dry that neither an early nor late crop could be grown. Nine times in ten the early crop is the safest, because it misses the summer drought that seems to have become almost inevitable. Many writers have advised the sowing of cow-peas as late as the middle of June. It it far safer to sow them early.

**Reservoir** There is one thing that every farmer should do, if his land is in such a shape that he can, and that is to dam up a ravine on his farm so as to form a lake—not a mud-hole, but a lake. I know hundreds of farms on which this can be done at little expense and a depth of ten to twenty feet of water secured. I have noted many sorry attempts at building dams for this purpose, the work being less than half done, with the usual result—a broken dam and a shallow puddle. I have also seen the work well done, and a fine lake two to three hundred yards long, thirty to sixty feet wide and ten to twenty feet deep secured, from which hundreds of pounds of fish and tons of ice are taken every year.

FRED GRUNDY.


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# OUR FARM

## FARM THEORY AND PRACTICE

RENEWING OLD PASTURES.—The severe drought has been hard on pastures, both on account of lack of moisture and on account of overstocking. The sod is killed out in places, and weeds will come in. A great deal of our natural pasture-land should not be broken except when a new seeding becomes absolutely necessary, and the lifetime of these pastures could be prolonged by some attention right now. The best way to control weeds is to crowd them out, and there is no better plant than timothy to do this with until better pasture-grasses can get a new foothold. In September, no matter if the weather is dry, a grain-drill, with sharp hoes, should be run over all thin patches in the pasture, distributing one fourth to one third of a bushel of timothy-seed an acre in connection with two hundred pounds an acre of a high-grade acid phosphate. The drill-hoes will cut the thin sod so that some of the seed will find fresh soil for starting when the fall rains come, and the trash of the old sod will furnish some winter protection to the new plants. If some stable manure can be spared for a light top-dressing it will pay well in making a sod that will choke out the weeds. We expect too much of our pastures, and help them too little. If the bare spots were given some seed in bad years, and some fertilizers were added after a light scratching of the surface, weeds would be kept under better control, more grass would be gotten, and the breaking-plow need not be used so frequently on land that needs the protection of a sod all the time. If we would look upon pasture-grasses as a crop, and give them attention when most needed, our labor would be rewarded fully as well as it is when applied to most tilled crops.

KILLING PERENNIALS.—This is a good season for killing bushes, briars and weeds in pastures. A reader of one of the farm journals recently stated that he once knew what day in August was the right one for killing such growth, but he had forgotten, and would like to know the exact date. Some farmers persist in believing that special days have virtue in them. The fact is that the right day to take the greatest possible amount of vitality out of a plant by cutting its top off is the day or days when weather and soil conditions and its own stage of growth are such that there is the least power of recuperation in that plant. In the case of plants that make seed this stage is just before the seed matures, especially if the soil is lacking in moisture. The plant has put forth its best energy to make a crop of seed, and if all leaf surface is taken from it during this trying process it is injured. Some plants will die under these conditions, while others will not, but all are weakened, and that means progress in the work of extermination. Extreme heat of the sun's rays upon the bleeding stems of some plants reduces vitality. A hot spell of weather during a drought in midsummer affords a favorable time for cleaning pasture-fields. Thorough work with a sprouting-hoe for all bushes, and close mowing with a scythe where there are briars and weeds, will do much in such a season as the present one to get the growth under control. It will not be killed by one trimming, but the work next season will be less. Where it had gotten a strong foothold I have cut over the pastures twice in a season to keep it in check, but thorough work in an August drought each year will soon give the sod mastery, with a little help each year.

SHORTENING THE FEEDING SEASON.—The prices of feeding-stuffs have gone up at a rapid rate. Sorghum, cow-peas and other summer forage crops were planted more freely than usual to help out the short corn crop, but the supply of winter feed is woefully small on many farms. Where corn-stubble is not to be seeded to wheat or oats it will pay to sow rye at once for late fall and early spring pasture. Two bushels of seed an acre is about the right amount for pasture, and the seeding should be made as early in September as is practicable. If the fall is seasonable some pasture will be gotten before winter, and early in the spring the rye will make a lot of feed that will do the stock good. It is especially valuable for young stock, such as lambs, calves and colts, when used with judgment. Such pasture is washy when depended upon too exclusively, but it can furnish about half the bulk of feed needed by an animal, being supplemented by some hay and grain, and the green feed helps to get full value out of the dry feed by aiding digestion. Rye comes on very early in the spring, and makes good pasture fully one month before summer pastures should be stocked. If the land is not tramped when wet the sod improves the soil, and there is a double gain from the seeding. Do not let land lie bare during the winter, and this year manage to get some feeding value from it if the supply of feeding-stuffs is small, bearing in mind always that the grazing cannot be done with profit when the ground is wet.

HARVESTING CORN.—We have been just as slow in employing new methods of harvesting and handling our corn as we were in accepting the wheat-harvesters as substitutes for the cradles. It took years to introduce machines for the handling of the wheat crop, and while they are now an absolute necessity, the corn machinery has to be forced upon the attention of farmers in many sections. Our conservatism shows up plainly when a sort of revolution in the methods of handling a crop is urged upon us. The greater part of the corn crop is still cut with a corn-knife, and the corn is husked by hand, while the fodder is fed long or else run through a cutting-box. But machinery for performing this work has been so perfected, the value of the stover has become so well understood, and the supply of hands has become so small upon the farms, that the corn harvester and husker and shredder are making rapid headway in gaining public favor. Farm-work must require less and less human labor or go undone whenever mines and factories have a demand for their products, as they can pay higher wages than farming will justify. With self-binders, threshers, mowers, hay-rakes and hay-slings the wheat and hay crops are now saved largely by horse and steam power. Such power must do the major part of the work in the case of corn. Successful harvesters are now in use, and the shredders help us to get full value out of the stover, permitting the sale of more high-priced timothy hay. The fact is worth noting that this improved machinery is not displacing labor on the farms, but is coming in to do the work that has been abandoned by the men who have flocked to the factories and public works where better wages can be paid by employers. DAVID.

## WHEAT CULTURE AND THE HESSIAN FLY

As to wheat American growers are still in the lead. The German millers have acknowledged that their home-grown wheat is so deficient in gluten that imported wheat, such as Kansas Hard or Northwestern Spring or other hard wheats, must be bought to mix with the home-grown to improve the baking quality of the flour.

It is not advisable for the farmers in the white-wheat growing districts to drop the culture of white varieties and substitute the red ones containing a larger proportion of gluten, such as are grown in southwestern Kansas and Oklahoma. The up-to-date baker wants a certain proportion of white-wheat flour to give his loaves good color, but enough strong flour, such as contains at least forty per cent of wet gluten, to give each loaf a highly nutritive character. Neither the miller nor the baker wants the wheat-grower to do any mixing for them.

Immense loss has resulted in western New York and elsewhere from the attacks of the Hessian fly. What can be done now to ward off its attacks is the leading question. In brief, the first thing to be done is to burn the stubble if that can be done safely. The next thing is to procure pure, plump seed of Dawson's Golden Chaff for sowing early in October. In the meantime plow and thoroughly pulverize the soil on a strip of land about twenty feet in width entirely around the field to be seeded with the main crop later, and seed this with any variety of wheat that stools or tillers out freely. Do this quite early, so that the fly will attack this first. Some seed this strip with timothy when the wheat is sown.

The universal testimony respecting Dawson's Golden Chaff (which was originated at the Canada experimental farm at Guelph, Ontario) is that it is practically a weevil-proof variety in western New York and in central and western Michigan. Mr. Wm. N. Rowe in a recent address before the Michigan State Millers' Association said: "Since the Hessian fly had become so destructive he had found that Dawson's Golden Chaff, which is large-stalked, with strong straw, effectually resists the attacks of the fly and seems to stand up the best of all." He said that his crop last year was over twenty-four bushels to the acre, and that this year's crop gives promise of being a still better one. The Colby Milling Company, of Dowagiac, report the present wheat crop as being much better than last year, and state that Dawson's Golden Chaff seems to have been free from the fly.

During a recent visit to Genesee County in western New York I learned that Dawson's Golden Chaff was the only variety that yielded a full crop, though other varieties being almost wholly destroyed. There is no doubt as to the facts as here stated.

WM. M. KING.

## AGRICULTURAL VERSUS STREET FAIRS

From the first of August to the middle of October is the season of the agricultural fair. As now used in the United States the word "fair" appears to have completely lost its Old World meaning.

Fairs in England are of ancient origin, and appear to have been but the natural expression of a general demand for a public market where the seller with his wares might meet the buyer with his money. Lord Coke quaintly defines fairs to be "a greater species of market recurring at more distant intervals." Fair and markets have both been distinguished by this writer from a "mart," which he considers as a yet greater species of "fair." All three may comprehensively be described as a customary or legalized place for the sale of commodities. In the old days in England the laborer out of a job journeyed with the agriculturist to the fair and there offered his time to the highest bidder. These laborers, who were as often women and girls as boys and men, were put through their paces as thoroughly as were the horses offered for sale upon the same course. They were carefully examined as to soundness of wind and limb, and the bidding was based purely upon the physical condition of the subject offering to sell his or her services. So strict were the laws of the day defining the rights and power of the employer, or "master," over the hireling, or "serf," that the relationship amounted to practical ownership and the service little short of actual slavery. In England no fair could be held without a grant from the sovereign, and consequently the transactions which occurred at the fairs, including the hiring of servants, possessed the seal of governmental authority or approval, and was binding in its effects. Of course, this latter condition no longer prevails in England, but the institution of the fair itself remains practically as it was hundreds of years ago. It is a place where manufactured and agricultural products are offered for sale, and it is in no sense regarded, as it is with us, an occasion of relaxation and merry-making.

In common with many other excellent institutions that remain with us, but whose origin would scarcely be attributed to such a source, the word "fair" comes from the Catholic church, having been borrowed from the Roman custom and applied to festivals. Catholic fairs are common in every community where members of the church are numerous; but the occasions are used for the display of fancy work and the sale of the same, friendly contests of skill or chance, and many original ways of entertaining crowds are introduced.

In this country the word "fair" seems to be exclusively applied to industrial exhibitions and to what may be more appropriately described as "fancy bazaars." The Horse Fair was the start of it, and it is believed that the institution had an involuntary origin. In the early days a man who owned a horse just a little faster than his neighbor's would make a peremptory challenge to a race. A smooth stretch of road was selected, word was passed around among the neighbors, and on the day of the race a crowd of women and men, usually on horseback, was present to witness the sport. The occasion was found to be enjoyable, and its practice was encouraged by public men, and the result was the regularly constituted horse-race, to which hundreds of people were attracted. The institution grew and was made the occasion for the display of perfected products of farm, shop and loom. When once started the mighty possibilities of the occasion became apparent, and with the usual Yankee readiness it was utilized and increased as the demands appeared to warrant. It will be seen that the present agricultural fair did not spring into being full grown, but gradually assumed its present proportions and purpose. From the diversity of the interests that called the agricultural fair into being it is perhaps the most varied form of entertainment to be found in America.

It is for all classes of people. Undoubtedly the dominant idea of the originators and promoters of the fair was to make it an exhibition-place for all sorts of products, whether grain, fruits or live stock; but custom has apparently modified the rule, and the amusement feature of the fair of to-day is second only in importance to the exhibits.

It should be borne in mind that whoever patronizes a fair—that is, every one who pays his money at the gates to see the fair, is entitled to the consideration of the managers, and he usually gets it. It would be folly for the fair managers to prepare an exhibit of oil-paintings and fine needlework for the man who is interested in cattle, hogs and sheep. But there are many who attend the fair for the purpose of examining the exhibits in the fine-art departments and care little or nothing for the live stock. Again, there is the large class who go to be amused. These are mainly young persons who make no pretense to a desire for improvement. They attend the fair and see everything on hand. Unconsciously they are educated to the limits of the exhibition. They observe the perfection of the stock and other exhibits, examine the pictures, needlework, flowers, fruits, vegetables, and carry away with them impressions that will last through life. As soon as possible they hurry into the grand stand to see the races and hear the bands and chat with acquaintances. They are happy, delighted with everything, and, to tell the truth, are the spirit and inspiration of the scene. Manifestly, and this in the light of experience, every feature of the fair must be arranged for the class of persons who will most enjoy that particular feature. The agricultural fair is about the only institution which combines in a close relation business and pleasure, profit and amusement. Visitors at such a place can hardly be entertained without receiving benefit, so closely allied and associated are all the departments of the exhibition.

The fair is a time for relaxation, and for many persons is the only vacation the year affords. That the primary object of the majority who attend the fair is to seek improvement cannot be maintained. This fact has long been recognized by the managements, and every device possible in the way of attractive arrangement, perfect finish and unique display has been made use of. Generally speaking, managers of our agricultural fairs deserve great credit for their earnest endeavors to furnish a high-class, moral and instructive exhibition.

The horse-race as an accompaniment to the fair is frowned upon by a class of persons who desire to attend to see the exhibits. These persons are enti-

tled to consideration, and they receive it in a large degree from the managers. The experience of many years proves that the decently and fairly conducted horse-race is the most popular amusement that can be offered to a large crowd of people. The popularity of the races is attested by the large crowds that throng the track. Nothing has ever yet been offered that would begin to be so popular, and no form of amusement is so generally demanded by the entire public. Ample entertainment is usually provided for those who are opposed to racing, so that their entertainment is not curtailed by reason of the performances in the speed ring.

The spirit of education is a subtle one. Its fruits are not always manifest in a public way. The effects of the enlightenment afforded by the fairs are to be seen in the improved conditions under which the people are living; in the improved live stock that ranges the farms; in the beautiful homes that dot the country; in the refined demeanor of the people generally, and their ready appreciation of worthy endeavor. In bringing about all these things the agricultural fair has done its share. Undoubtedly it has been a very powerful factor in creating the improved condition under which our people are living. It cannot be contested that the number of exhibitors should be greater, and perhaps if the proposition were placed before the people in a more attractive way they would increase; but it cannot be successfully claimed that the results of agricultural fairs can be measured only by the number of exhibitors.

Of late years in nearly every community there has sprung up a disposition to offer as a counter-claim to the patronage of the people, the institution named the "street-fair." These attractions are what their name indicates, an exhibition of industrial products given in the streets of a town or village. Prizes are usually offered by merchants for the best bushel of corn, potatoes, wheat, etc., and for the best loaf of bread, cake, pies, etc. Very seldom have these offers resulted in bringing out a sufficient number of contestants to give the affair even the semblance of a contest. Agriculturists have never entered heartily into the form of entertainment known as the street-fair, and the institution has resolved itself into an army of side-shows of questionable morality and by no means questionable purpose. The main object of street-fairs, so far as observation has gone, is to separate visitors from their money in the quickest possible manner, and make the smallest return for the same. In many cities and towns in Indiana, and it may fairly be presumed that a like condition exists elsewhere, the street-fairs have brought into the place a gang of fakirs, peddlers, showmen, lewd women, and transitory merchants whose mere presence was a menace to the well-being of the youths and maidens, and a menace to the peace and safety of the citizens generally. Gamblers were on every corner, and gambling was rampant day and night. There was never a street-fair without its "Midway," and this was fairly redolent with vice and temptation. After a careful correspondence, carried on with the purpose of finding some one who would report favorably upon street-fairs, I have not been able to find a responsible citizen, outside of the promoters of the entertainments, who would give a good report concerning them. In nearly every instance the exhibitions were the subject of ministerial protest, and their return to a town called forth organized opposition. C. M. GINTHER.

## PROTECTED CROPS, OR CONQUERING THE SOIL

[CONTINUED FROM PAGE 1]

his trees, and in the winter filled them with dried pine-needles. This did not prove wholly satisfactory. He then tried cloth tent-covers. His orange-trees now are the pride of the town.

The returns from choice orange groves will pay for protection. I have seen a grape-fruit tree near Belleview, Fla., that has borne fifteen hundred grape-fruits in a single year. These grape-fruits at ten cents apiece would have brought the owner one hundred and fifty dollars. A hundred protected grape-fruit trees would yield an income of a thousand dollars or more, and support a man and his family in Florida, a place where one may live more cheaply than anywhere else in the world, as the sun furnishes him largely fuel and clothing, and one's gardens may be made to produce sweet-potatoes, cabbages, strawberries, cumquats and figs and grapes nearly all the year. Like Holland from the dikes, so Florida is to rise again and in golden glory by protected trees. The rich are protecting acres of orange and grape-fruit trees in this way. A poor man may protect enough to support his family.

There is a quality of the Florida orange that will always give it a distinct place in the markets of the world. The Florida orange can never be driven from the market.

The great use of grape-fruit in the Northern cities would alone secure Florida fruit-growers from failure. The fruit is reported to contain quinine, and to be a very good tonic and vitalizing. However this may be, banquets that used to begin with soups now start with halved grape-fruit which have stood soaked with sugar for half a day or more, awaiting the festal hour. In some places the grape-fruit pulp is frozen, and served like sherbet.

The hardy bush orange of China, or cumquat orange, is likely to be grown extensively in Florida. It finds an immediate market. The Citrus Deliciosa, or China Mandarin orange, is also likely to come into use more largely than before, as it can be easily protected.

### COFFEE

A few years ago I was in Costa Rica. I went from Port Lemon to Costa Rica's beautiful city, San Jose. Passing through lofty groves of cocoanut palms to what seemed to be an ocean of banana-fields, I was surprised to find cart-loads of ripening bananas heaped up along the way—bananas enough, it would seem, to feed all New England. I turned to a friend sitting beside me and looking out of the car window.

"Why does the country pile up bananas by the roadsides to rot?"

"That the leaves may grow stronger and last longer."

"But the people do not grow banana-leaves."

"Oh, yes, they do."

"Why?"

"To protect their coffee-plants. Those are not banana-fields. They are coffee-fields. Coffee has to be protected from the sun."

It is so everywhere. Holland protects her glistening gardens from the sea; New England makes her short season long by gardens under glass. The Dakotas protect their crops from drought, and by canned fruit and vegetables secure for the winter the products of long-season crops. They are doing what the hardy people of northern Europe so well have done. Florida is protecting her oranges, and Costa Rica her coffee. The agricultural and horticultural world is finding out the value of the agricultural college; two windmills may be placed in a single field; both of them will go. What is worth growing is worth protecting. Thrift finds a way; creative genius is money. One may conquer the soil.

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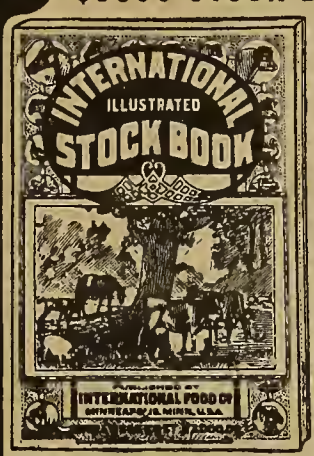


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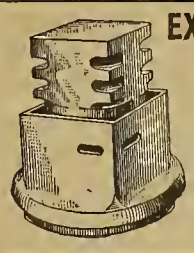

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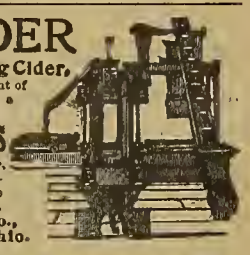

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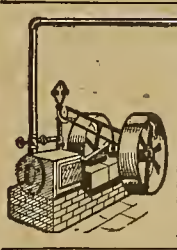

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## Notes From Garden and Field

LATE PLANTING.—The great majority of home gardeners "make garden" some time in spring or whenever they think they can "rob the farm" of the work required to do it. A few beans, some cucumbers and melons and a little sweet-corn are put in later, and that concludes the season's planting. This course, however, is not calculated to give to the farmer even a reasonable portion of all the benefits that can easily be secured from the garden spot. Here we are in the first week of August, and I am still sowing seeds and planting, and expect to see satisfactory results. What did I sow and plant this late? In the first place, of course, the ever-ready radish—the common turnip-rooted radish which grows to table size in four weeks or less from the time the seed is deposited in the ground. Then I put in a few winter radishes—rather early for that vegetable, but all my folks like it, and I can use them in early fall, having another lot growing by that time from seed sown late in August or early in September. I also sowed a few rows of Short Horn carrot and early table-beets (Eclipse), in order to have a supply of real nice and tender carrots and beets for my own table and to store for winter use. The young carrots especially, if skilfully prepared by a good cook, make a most delicious dish, and are greatly relished by every one in the family. I like to have a mess of them right along at least once a week. Spinach for fall use and kale for fall and winter greens were not forgotten, either. And finally, for an experiment, I planted a bushel of Carman No. 3 potatoes. I would much rather have planted Early Ohios, but did not have them. These potatoes had been intended for planting about July 1st, but as the ground was too dry to be worked then the planting was put off until now. They were left on the ground under a bench in the greenhouse, and had become thoroughly greened, with strong, stubby sprouts, and in some cases with young potatoes already set. I know it is late for planting potatoes, but I am in hopes that frost will stay off until after the potatoes have made some growth and formed tubers, even if small and immature—these tubers to be used for seed next year. As I said, it is an experiment, nothing more.

PLUM AND CHERRY ROT.—Niagara is called the banner fruit county of the Empire state. We usually have fruits galore. But such a fizzle as the fruit business is with me this year! I used to sell sour cherries by the wagon-load; this year I have not had enough for a single pie, nor of sweet cherries, either. Plums had bloomed and set quite well, but not a single specimen of fruit is left on the trees. Rot has taken every one, plums and cherries. In some years I have tried spraying with the Bordeaux mixture for rot, but never saw much good from it. The rot would continue just the same. A few hours ago, at the magnificent fruit exhibit of New York state in the Horticultural Building of the Pan-American, I met Mr. Geo. T. Powell, the director of the School of Practical Agriculture and Horticulture at Briarcliff Manor, N. Y., a noted fruit-grower, who told me that he had saved his crop of cherries this year by persistent spraying with the simple solution of copper sulphate, three to four ounces to fifty gallons of water. The applications were made daily during the period of rot attack about ten days. The rot-specked specimens dropped off, and the clean ones remained free from attack, so that he saved quite a crop, that brought him twenty cents a pound. He also sprayed his peach-trees, for the purpose of protecting the fruit from rot, but with a slightly weaker solution; namely, three ounces of copper sulphate to fifty gallons of water. If this treatment really proves a sure protection I may consider my trip to the Exposition-grounds well repaid, and it will be pleasing news to fruit-growers generally. The Monilia (rot) has spoiled a good share of cherry, plum and peach crops heretofore.

CABBAGES CRACKING.—It is with cabbages exactly as it is with all other things in nature. There is no standstill. First comes the development, the growth, then the decline ending in destruction. The ultimate aim of natural development, of course, is not the formation of a solid head. That is rather the handiwork of man, or the interference by man's hand. Nature aims for the perpetuation of kind by means of seed. When the head is formed the next step is to give the seed-stalk a chance to push through that unnaturally solid layer of leaves, and the head begins to crack. The next step is the growth of the seed-stalk, the ripening of the seed, and finally the death of the plant. We as gardeners want the perfect and most solid head, not the seed. An old way of stopping the cracking of cabbages in the field is that of pulling or pushing the plants over sideways, so as to break the roots on one side, and thus give to the plant something to repair. My friend H. A. Catlin some time ago, in reply to some complaints in the FARM AND FIRESIDE about Early Winningstadt cabbages cracking badly when not secured early, wrote me as follows: "If the plant is seen to show a disposion to crack, or is of very large size and is bent out of its accustomed position so as to start the roots on one side, and breaking some of the smaller ones, the full action of plant growth will, of course, be stopped, and no more cracking will occur until the injury is repaired and growth is normal again. Then turn the plant the other way, thus breaking off some roots from the opposite side. This, I think, will prolong the soundness of the head until it can be used." I and others lose a large percentage of our cabbages by cracking. Timely attention will save most of this loss.

T. GREINER.

### TABLE FOR HANDLING GRAPES

A very convenient and cheap table suitable for packing grapes may be made as shown by the accompanying illustration.

I have seen large, heavy tables for this work in many grape-houses, upon which the grapes were emptied from the trays, to be sorted, trimmed and packed into baskets. I do not favor this method of treating grapes. I think the less they are handled the better; the packing-table shown makes it possible to take the grapes out of the tray stem by stem as wanted by the packer, and thus avoid the emptying out of the grapes. The table is so constructed that a tray fits into it tipped up sufficiently to make it convenient to take the clusters from it.

In the illustration half of the tray is cut away in order that the construction of the table may appear plainer. Upon the cleats, C C, the tray, T, rests, and the strip, S, back of the tray secures it and holds it in position. The back part of the table may be braced or stayed as shown in the illustration by X X.

The height from the floor to top of the table should be twenty-two inches. The width of the leaf, L, is about ten inches. The length of the table will be governed by the size of the trays in use. It is essential that all trays are of uniform size.

The little block, B, on the head-piece of the tray answers a twofold purpose: It serves as a handle in place of the hand holes, and it keeps the trays from slipping off one from the other when they are being piled up in the storeroom or when hauling on the wagon or sled.

F. GREINER.

TABLE FOR HANDLING GRAPES

## Orchard and Small Fruits

CONDUCTED BY SAMUEL B. GREEN

### INQUIRIES ANSWERED

**Diseased Raspberries.**—B. H., Mass. I do not know the trouble with your raspberries. The specimen sent failed to reach me. We have some varieties that are liable to fail in the way that you describe. I think that your best treatment would probably be to dig out and destroy the old plants which you now have, and replace them with some vigorous, fruitful variety, such as the London, King or Marlboro.

**Grafting Pear on Crab.**—B. H. S., Tiffany, Wis. I have never tried the Gakovsky pear on the Whitney No. 20 apple, but have had considerable experience with grafting others of the Russian varieties of pears on apples. I have found them to take readily and to make fairly good unions, and I am inclined to think that the Gakovsky will do the same, since it is a vigorous grower. I doubt very much, however, if it will be a success when top-worked, since the union will be so much exposed that it will very likely be injured and not become permanent. As a root-graft I think it will succeed well, as the scion will soon send out roots of its own.

**Grapes.**—J. B., New Haven, Ind., writes: "Are the following grapes of any account? Brownsville White, American Beauty, Janesville White, Saltzer's Earliest and Sunbeam. Are the following new grapes desirable for an amateur collection in northwestern Indiana? Are they hardy and exempt from disease and mildew? Charlton, Corly and Montclair. Are the following of Professor Munson's productions hardy enough for this same place? America, Atoka, Beacon, Bell, Delago, Delmar, Gold Coin, Lindenar, Likfata, Manito, Marvina, Presly, Wapunka and Yomago."

REPLY:—Most of the grapes in your first and second lists I am unacquainted with. They are varieties that have never received much favorable comment, anyway. The Janesville, however, is a cross between the Frost grape and the Fox grape, and its chief merit is great hardiness, which permits of its being grown far north and in very unfavorable locations. It is recommended by the Minnesota State Horticultural Society for northern Minnesota. While it is productive, yet the bunches and berries are only medium or small in size and quite sour. The varieties of Professor Munson's about which you inquire are all fairly well adapted to your conditions and worthy of trial by grape-lovers. Some of them, however, are much better adapted to wine-making than for table use. They are as follows: America, Atoka, Beacon, Big Extra, Bell, Delago, Gold Coin, Likfata, Manito, Marvina, Presly, Wapunka, Yomago.

**Mulching and Pruning Currants and Gooseberries.**—K. P., Forsyth, Mont. The best way of mulching and pruning currants will depend somewhat upon the location and resources at hand. One of the best mulches is the chaff and broken straw from the bottom of an old straw-stack. Hard-wood sawdust and coal-ashes are also good. Mulches may be put on at any season of the year and be allowed to remain permanently. They will, however, need some renewing from time to time. It is not practicable to make a mulch so heavy that no weeds will come up through it. Currants require comparatively little pruning. This should consist in removing the weak wood, especially that which is infested with the currant-borer. This pruning should be done during the autumn or early spring or in mild winter. In addition to this the weak suckers and any that are not needed to keep the bushes in good form should be cut out. It should be borne in mind that the fruit is produced on wood that is at least two years old, so it will not do to depend upon the new wood for fruit. Gooseberries should be pruned in the same season as currants, and the same points should be borne in mind, except in addition, if large fruit is wanted, the new growth should be cut back each spring from one third to one half its length. Such treatment will have a wonderful effect upon the size of the fruit.

**Azaleas and Rhododendrons in Minnesota.**—A. G., St. Paul, Minn. The cultivated varieties of azaleas and rhododendrons have never been successfully grown outdoors in Minnesota, although I believe it is possible to grow them if one would only take sufficient care. The climate is too dry and cold for them. They do best in a protected, moist, cool situation, such as one would find upon the north side of a hill near some spring or other place where the ground would be moist and cool. The nearer you can imitate this situation, the nearer would be the chance of success. These plants form their flower-buds in autumn, and these are very liable to be killed in winter, and with us would require great protection in any situation which one would be apt to find here. I think your best chance of succeeding with these plants would be to buy them in the early spring and plant them in boxes about fourteen inches square and deep. On the approach of warm weather, or, for that matter, at once, they could be set their full depth in the ground. Thus treated they are as favorably situated as if planted out, and the boxes and plants can be raised in late autumn and be put in a shed or other protected location to remain over winter. It would be desirable to give them a little shade in summer to the extent of keeping off about one half the sunlight. This might be managed by setting the boxes in some grove where there was a play of light and shade over the ground all day. The best azaleas for you to try are probably those of the Mollis type, and of rhododendrons of the Catawbiense type.

**Twig-blight—Bitter Rot.**—B. L. B., New Canton, Tenn. I think the reason why the twigs on your apple-tree are dying is that they are affected with the ordinary twig-blight, or fireblight. This is a common disease on many varieties of apple-trees thoughout the Western states, and is common on the pear almost throughout the whole country. It is very injurious in some years, and sometimes for a series of years will do very serious injury, and then it will scarcely do any injury for a number of years. Some varieties are much more subject to it than others, and in the West, where this disease is well known, some varieties that are perfectly hardy against climatic troubles and are very desirable are discarded from the fact that they cannot withstand this disease. There is no satisfactory remedy. If it were possible to spray the tree with Bordeaux mixture for a month or more during the summer it could probably be prevented, but this is out of the question under ordinary circumstances. The best treatment is to cut off the diseased wood as soon as it appears and to burn it. It is thought by many that the disease may be carried from one tree to another on pruning-implements. I have often seen cases where the disease seemed to spread from some specially susceptible tree. The Transcendant crab, for instance, is a tree that is very commonly affected with this disease, especially when growing in very rich soil, and it frequently happens that where there are only a few of these trees in an orchard the trees near by them will be affected, while those at some considerable distance than are injured.——The common bitter rot, or ripe rot, of apples occasionally destroys much fruit, causing it to rot on the tree before picking or very shortly after. The best remedy is spraying with Bordeaux mixture; but care must be taken that at least two weeks intervene between the spraying and the time the fruit is picked, otherwise the fruit will be injured in appearance by the application.

# THE POULTRY YARD

CONDUCTED BY P. H. JACOBS HAMMONTON N. J.

## SCABBY LEGS

THE unsightly disease known as scabby legs, which affects the legs of the fowls, causing them to swell and become distorted, is due to a small parasite which is similar in appearance to that which causes scab in sheep, according to government scientific investigation. It is roundish, oval, semi-transparent, about one hundredth of an inch in length, appearing when magnified four hundred diameters, about half an inch long. If the scales from the legs of a diseased fowl are beneath the microscope a number of these mites may be found between them. Beneath the scales there is a spongy, scabby growth, in which the eggs and pupae of the mites are to be seen in great numbers. The pupae are very similar in shape to the mature mites, but are very much smaller, appearing when viewed with the microscope about one tenth of an inch in length. The disease being of a somewhat similar character to the scab in sheep may be cured by the same treatment. The remedy generally used is an application to the legs of a mixture of lard with one twentieth part of carbolic acid. This should be applied with a stiff brush, such as one of those sold with bottles of mucilage, or a painter's small "sash tool" would answer the purpose; but something must be used by which the medicated grease can be applied thoroughly to the crevices between the scales. A mixture of equal parts of lard or sweet-oil and kerosene will be equally as effective as the carbolic-acid mixture. It is possible that lard or oil alone would be effective, but the kerosene more easily penetrates between the scales, and carbolic acid is a sure death to the parasites. The remedy being so simple it would be inexcusable if this disagreeable affection is suffered to remain in a flock. If one fowl is troubled with it the difficulty will certainly spread, as the mites will burrow beneath the scales of another fowl. If precautions were generally used the parasite could soon be exterminated.

## BEGINNING WITH LARGE NUMBERS

It is better to rent a small farm to begin with poultry rather than make an investment in buying, unless the beginner fully understands the keeping of fowls, for the reason that if one buys he reduces his working capital, and should he be unsuccessful he must stay on the farm until he can sell it. If he rents he can return the farm to the owner and leave. It is claimed, however, that if one buys he can begin and get everything ready for a permanent stay, which is true, but that is just what an inexperienced person should not do. He should start in a small way and make his capital by increasing his flocks every year; hence, by the time he has a large number of fowls he will know much more than when he began. He can then take his fowls to a purchased farm and feel that he has made a good beginning. That is the main point in favor of poultry—the making of the capital. No one should expect too much for the first two or three years. Begin with but little capital, let the fowls increase, and in five years one may be well established instead of taking the risk of losing it all at once.

## THE FOOD AND ITS DIGESTIBILITY

It is a well-known fact that the quality of the food is of no avail unless it can be properly digested and assimilated. It is also known that while some animals can easily digest certain substances the system is deranged and thrown out of condition when a different food is substituted. An animal or fowl may at times partake of the coarsest and apparently most indigestible material and yet form a repugnance or dislike to that which is seemingly more digestible yet less palatable. Hence, in attempting to practise a system of feeding based exclusively upon the relative amount of protein, fat, starch and mineral matter composing the different feeding materials the natural characteristics and habits of each individual must be considered; for while it is admitted that certain weights of feeding material will contain the exact amount of the elements necessary, yet some will appropriate only one half of that contained, voiding the remainder as so much waste. It is apparent that fowls will require amounts of food in proportion not to the elements contained, but according to what they can digest and appropriate therefrom. The shelter, water, health and vigor affect the results, but the farmer who feeds according to the formulas given will do so more intelligently than he who gives no attention at all to the matter. The experienced farmer or poultryman already knows how to feed, when to feed and what feed is best suited to the different fowls, but there are so many novices and beginners in the poultry business that a few hints on feeding will not be amiss. The first thing the beginner asks is, What food shall we give to obtain the best results? In the first place, give a variety; in the second place, feed regularly, and last, but not least, give just as much as the fowls will pick up clean and not leave a grain on the ground to be wasted.

## BROWN LEGHORNS

It is doubtful if there can be found a flock of Brown Leghorns in which there has not appeared at some time more or less white in the plumage, and the birds having the white may have been hatched from eggs laid by the mother of first-prize winners. Frequently the young birds will show considerable white the first four or five months, and then it disappears. Although white is a disqualification, yet it has not the evidence of impurity or dishonesty in the breeder, as it often appears in the "best-regulated flocks."

## INQUIRIES ANSWERED

**Overfeeding and Heat.**—J. C. J., Mt. Ayr, Ind., writes: "My fowls sit around, live forty-eight hours, and die. Cutting one open I found it fat and the liver covered with yellow spots."

REPLY:—The method of management should have been stated. The birds are probably very fat and affected by severe warm weather.

**Roup.**—E. L., Asbland, Ohio, writes: "Is there a remedy for roup that is known to be a sure one?"

REPLY:—Roup covers many diseases. Ordinary roup (catarrh) is said to be cured by opening the beak and dipping the head in a two-per-cent solution of permanganate of potash, but it is doubtful if there is a remedy that is absolutely sure.

**Disease of Chicks.**—D. G. M., Plano, Texas, writes: "My chicks seem to be partially blind, though their eyes are open, necks get limber, and they have difficulty in swallowing."

REPLY:—You did not state the conditions of management. The cause may be due to exposure, lice or parasites. Anoint their heads and faces with vaseline, first cleaning their quarters.

**Staggers in Chicks.**—My brooder-chicks, about three weeks old, stagger and die. They are fed a variety. Some that are two months old feather slowly and do not grow. They have a good range on which to run.

REPLY:—The warm season is usually severe on very late chicks, and they do not grow as rapidly as a rule as the early ones. It may be that lice affect them or the brooders are too warm at this season.

**Broilers on Small Lot.**—H. F., Hastings, Neb., writes: "Will you please inform me how many broilers could be raised on a lot fifty by one hundred and fifty feet, and also what size a house would be needed for them? They will have plenty of shade and fresh water."

REPLY:—A space six by eight feet, with outdoor room six by twelve feet, has been used successfully for a hundred chicks, but fifty will thrive better. A house twelve feet wide (three feet for passageway) and fifty feet long may be divided into eight apartments, to hold fifty chicks in each apartment.


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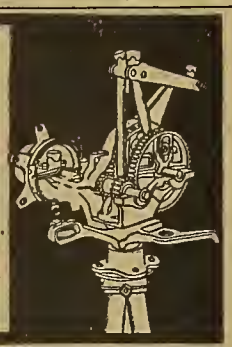

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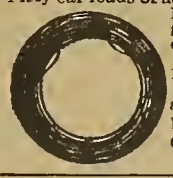

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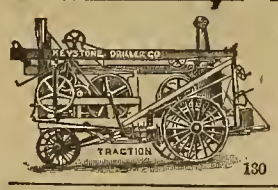

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# QUERIES

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Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

**Corned Beef.**—H. J. P., Rogersville, Ohio. For corned beef the following is recommended: Put six gallons of pure water in a large kettle, add to it six ounces of saltpeter, and set to boiling. When the saltpeter is dissolved and the water boiling immerse the beef (previously cut into pieces of convenient size for family use), holding it on a large flesh-fork, and let it remain while you count ten slowly. Take it out, cool it, and pack firmly in a cask. To the boiling saltpeter now add nine pounds of fine salt, four pounds of pure sugar and a little water, to supply the loss by evaporation. Boil slowly, and skim off the impurities. When the pickle is cold pour it over the beef, which should be held down by a heavy weight. The scalding of the beef in the hot solution closes the pores and prevents the juice of the meat from going out into the pickle.

**Making Cheese At Home.**—J. C., Macomb, N. Y. The article you request republished follows: If you have not milk enough at one milking, save two or three, but keep it perfectly sweet, with all the cream stirred in. Fill a boiler with milk, put it on the stove, and two level tablespoonfuls of salt, and heat it up to ninety degrees Fahrenheit, stirring all the time; set it off the stove and add one teaspoonful of liquid rennet—which you can buy at a drug-store—stir it well through the milk, cover with a cloth, and let it alone for an hour. The curd is then set, and with a long, thin knife cut it up into inch squares, after which let it set another half an hour, or until the whey rises to the top of the curd; lay a piece of cheese-cloth over the curd, and with a cup dip off all the whey possible; stir the curd up carefully and dip again, getting off all you can. Set the boiler back on the stove and heat the curd up to one hundred and ten degrees, stirring all the time and carefully breaking the curd into lumps the size of the end of your finger: when it reaches one hundred and ten degrees set it off the stove and dip off all the whey remaining—or pour it off, as the curd will settle to the bottom. Spread a piece of cheese-cloth over the cheese-hoop, and put the curd into it, packing it in a little at a time; spread the ends of the cloth evenly over the curd, and place a round board, fitting inside the hoop, on the curd, putting on a big rock or anything heavy for a weight; leave it on a day, then take out the cheese, turn it over and replace the weight. The next day take it out of the hoop, sew a muslin bandage around it, grease it all over with melted butter, and put it in a cool, dry place; any room without fire will do, except on the hottest days, when it should be placed in the cellar. Turn it every day for a month. If mold forms scrape it off and grease again. No flies must be allowed in the room. In four or five weeks it will be good, and get better until it is three months old. The curing is the most particular part. The curd must be handled carefully, as the cream runs off if it is worked too much. Have the cheese-hoop made by a tinner, or you can make one from a round, five-gallon oil-can by cutting off the top and bottom. A convenient size is ten inches deep and eight inches wide. Have a smooth board on which to set it.

## VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

**Weak or Paralytic in Hind Quarters.**—R. G., Canterbury, Conn. Please consult answer under above heading given to H. R. K., Sioux Falls, S. D., in FARM AND FIRESIDE of April 15th.

**Diarrhea.**—B. G. S., Rogersville, Mich. The treatment you are applying is, under the circumstances, about as good as any; but you must not lose sight of the fact that your mare being twenty-seven years old has lived her allotted time, that her days probably are numbered, that very few horses reach a higher age, and that any treatment may be expected to fail in such a case.

**Probably Navicular Disease.**—R. A. W., Church Hill, Ohio.—Your description, as far as it goes, indicates navicular disease, but does not positively exclude the presence of corns. About navicular disease please consult FARM AND FIRESIDE of December 1, 1900.

**Gets More Food Than Able to Digest.**—C. J. S., Marietta, Ohio. Your horse, it seems, consumes more food than he is able to digest. Gradually reduce the food and keep the animal on a lighter diet. As to the itching of the tail, it will probably cease if the latter is first thoroughly cleaned with soap and water and then washed once a day with a four-per-cent solution of creolin in water.

**Paraplegia, or Paralysis.**—F. F., Birch Run, Mich. Your description leaves me in doubt whether you have to deal with a case of paraplegia (general weakness in the hind quarters), nearly always incurable or whether your mare suffers from a partial paralysis of the crural nerve. If it is the latter, the affection very likely is limited to one leg, and by this time, provided the mare has voluntary exercise, but is exempted from any kind of work, a gradual, though perhaps slight, improvement will be observable. If such is the case a more or less perfect recovery may be expected in the course of time without any other treatment than good care, voluntary exercise and exemption from work. Still the time required may be several months, or even a year or more.

**Ulcers on a Mule.**—C. F. E., Rodney, Miss. Since in spite of your heroic treatment the ulcers have not yet been brought to healing, it must be concluded, unless your treatment has been too heroic and has prevented a healing, that the ulcers are of a malignant character. If not, one or a few cauterizations with a stick of lunar caustic (nitrate of silver), or a few applications of tincture of of iodine, applied to each individual ulcer with a camel's-hair pencil, ought to have sufficed to bring them to healing. Further, as malignant processes occasionally do occur on horses and mules, processes which defy any treatment, I advise you to have your animal examined by a veterinarian.

**Probably Hemoglobinemia.**—J. R. McC., Ortiz, Ky. The disease you inquire about, having caused the death of two mules and of one horse, is probably hemoglobinemia, or so-called azoturia. It is rather frequent in some districts and does not occur in others. It usually attacks horses accustomed to steady work and in a good condition after they have been idle a day or two and are then hitched up again. A good many horses may be saved if stopped wherever they may happen to be and are not urged to move on as soon as the first symptoms, usually consisting in a little unsteadiness in the hind legs and knuckling over in the hind pasterns, make their appearance. If this happens near the stable it may be well to unhitch the animal and to lead the same slowly to its stall. If such a horse is down and cannot get up any more a veterinarian should be consulted.

**A Fetid Discharge From the Nose—An Umbilical Hernia—A Young Heifer Prematurely with Calf.**—W. R., Gowen, Mich. Discharges from the nose of a horse are usually the product of the diseased, or catarrh affected, mucous membrane of some part of the respiratory passages, and if the discharges are fetid it must be taken as an indication that ulcerous destruction is going on either in some cartilaginous tissue in the respiratory passages or in the lungs, in a bone adjacent to, or helping to form, the respiratory passages, or in some morbid growth situated anywhere in the latter. Hence, such a fetid discharge may have different sources, and, consequently, varies in importance and requires different treatment, provided good results can be obtained, in different cases. Therefore, since the source of the fetid discharge cannot be ascertained from your description, no treatment can be prescribed and I can only recommend to have your mare examined by a veterinarian. Still, as your mare is old—you give her age as seventeen years—allow me to mention that she may possibly have a diseased molar in the upper jaw, and that a fistula may lead from the root of the diseased tooth into the maxillary sinus. If such should, on examination, prove to be the case the diseased tooth very likely would constitute the source of the then exceedingly fetid discharge, and an extraction of that tooth and a surgical operation, perhaps including a trepanation of the maxillary sinus, and having for its object a thorough cleaning of the fistulous canal, would probably effect a cure. If, however, the source of the fetid discharge should prove to be inaccessible, a successful treatment will be out of the question. The colt, already three months old when this reaches you, and therefore able to eat at least some solid food, can easily be raised by hand.——Your other colt has an umbilical hernia. If the latter is rather small there will be a good prospect that it will gradually disappear within a year. If it does not, and does not gradually decrease or does increase in size during next winter, it must be operated on by a competent veterinarian. The operation if well performed is not dangerous and sure to effect a healing.——As to your young heifer prematurely with calf, even if she is very small, it is far less dangerous and injurious to the animal to allow her to carry her calf the full time than it is to procure an abortion.

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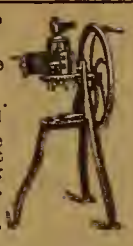

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## THE GRANGE

Conducted by MRS. MARY E. LEE, New Plymouth, Ohio

### CURRENT COMMENT

**The Wherewithal** Several years ago I called on a friend of mine, an intelligent, courageous, hard-working woman. Usually cheerful, her bright face was clouded, and sad. She held a farm paper in her hand. She tried to cast off the gloom, but was unsuccessful. Finally I said, "Tell me what troubles you. Maybe I can help you."

"Its these tantalizing writers," she answered. "Every paper I get speaks of a few shelves of books, of draperies and rugs and bric-a-brac. This article I have just been reading condemns the women for not furnishing beautiful, cozy, dainty homes with all the aforesaid comforts. She says that the woman who does not do it is a worthless mother, and that her children will grow up hating the farm and the home. I love beautiful things, and want my children to be associated with them. Like every mother, I have roseate dreams for my babies. But I cannot get the money for even a twenty-five-cent book, let alone draperies. Oh, I am so tired of all this toil without recompense. I love beautiful things. I miss my books and magazines and pictures. What is far sadder, I am losing my power of appreciation. I haven't the critical taste I once had. Just at the time when I ought to be at my best and brightest for my children's sake I am dull and stupid." She talked in this strain for a long time, and then, with pathetic, appealing eyes, exclaimed, "Can't you find out the reason for all this humiliation and self-abnegation? There is more need of missionary work being done here at home to ameliorate our condition than in the foreign field. There the women are content in their ignorance. We American women are ambitious and long for better things. We work hard, and many hours. We deny ourselves even the common necessities of life. Why, all last winter I denied myself the use of butter, that I might get enough money to buy "Little Women" for the children, and then had to use it for medicine when they had the diphtheria. I do not complain of that. I was thankful I had the money. But it does seem that when one practises extreme self-denial to secure some of the comforts of life, fate ought to be kind enough to gratify the desire. Am I getting cross and misanthropic? I don't mean to, but oh, I am so tired of the struggle."

My friend was not different from many thousands of farm wives. She had given up school-teaching to marry a young farmer. They bought a small piece of land, going in debt for it. Children came, and instead of leisure to teach them, added labor came upon her shoulders. Aside from caring for her home and little ones she became, as a large per cent of farm wives do, a bread-winner. She bought the groceries and linens (cottons dubbed linens for euphony's sake) and the every-day clothing and her one black dress with the trade. The husband was struggling to pay off the mortgage. Taxes, interest, machinery, stock, seed, and the incidental expenses which form so large a per cent of the outgo, consumed most of the income of the farm. It is the same weary story repeated with unimportant variations in thousands of farm homes. And when at last the debt is paid the children leave the home roof to find a life where there is more apparent compensation for the energy expended and the time consumed.

And the strugglers, what of them? Some have the habit of drudgery and saving so firmly fixed as to drown all finer sensibilities. They go through their life niggardly and penuriously, and the only sentiment excited in the hearts of their acquaintances, when they lay down the distaff of life, is one of commiseration for their dwarfed and stinted lives. There are no tears of regret for the loss they will sustain.

Others will celebrate their emancipation by building some outlandish and impracticable house, and furnishing it with pictures and furniture totally at variance with taste and good sense, while others, and a very large per cent, too, will, without display and ostentation, add comforts to their homes.

Why is it that so little recompense is reaped from so large an expenditure of labor? Why is it that the home is so devoid of comforts? Why should the wife sigh in vain for a few books, or a vase, or a picture or two, or that which every womanly woman loves—dainty and fragile china? Why should she push aside all desire for pleasure till she looks on a picnic or a small party of friends as something to be dreaded, not enjoyed? Why is it that her hats must be trimmed and retrimmed? Why is it that cheap, out-of-date ornaments humiliate her with their obnoxious presence. Why must there ever go up an agonizing prayer that to her and to her loved ones may come some of the amenities of life? Why must she look upon the gay life that she must of necessity see in these progressive days as something beyond and above her? To be sure, she sees only the happy exterior, and not the struggle behind the scenes. She makes far greater sacrifices, and struggles far more heroically, probably, than do those she envies. She would sacrifice and struggle yet more if some of the good things of life would fall into the life of the children.

It is true that not all farm wives are subjected to this struggle. Their number, we hope for theirs, their families' and their country's sake, is annually growing less. But they are sufficiently numerous to be in evidence in every farm community, and in some localities are in the majority. And it is to these weary strugglers that the September topic for discussion comes with particular force and directness. It lies with them whether they will continue in the ruts they have worn for themselves or by a powerful effort lift themselves out of them. Let them take time to consider the cost. The wife's income is from butter, eggs and chickens principally. Can she afford to make butter for market at the price she receives? If she can, well and good. If not, does not common sense bid her discontinue the work?

I speak to the wives directly, because in many instances the burdens are self-imposed. I have seen women stunt the calves, and eagerly churn every ounce of cream, and get six cents a pound for butter in summer, and fifteen cents in winter. And when the cattle are marketed they must be sold at a sacrifice because they are inferior. Phenomenally rich in butter fat must be the cow that will yield a profit at such prices. The plan of trading at small country stores with a limited and inferior stock of goods will enrich the merchant and enable him to purchase beautiful things for his family and give them many outings, but it does not give to the farmer's wife or children these advantages. Let the husband and wife carefully and impartially estimate the cost of production of the various farm products. When they have done so they will find in many, many instances that much of the drudgery has been futile; that it can be avoided with ease and profit to all concerned. It is not natural or right that the enormous amount of work should be done with so little financial return. In few other occupations is it done. In no place is there so little reason and excuse for it as on the farm.

**The Books We Read** Whenever I have any spare time in a town or city that has a library I like to drift into it and watch the readers. A casual observer would note the preponderance of fiction read over all other classes of literature. The shelves for fiction are nearly empty, while those containing history, biography, philosophy and science are crowded. Old men and young, elderly women, the society girl and the girl on her way form school all ask for a "good book" to read. "Good book" means some story with a most transparent plot, with entirely impossible characters awkwardly waltzing and simpering through three hundred or more pages. The favorite of the hour may be out. No matter; any good book will do. That they must have. They dare not be alone with themselves. If it is not some gossiping companion it is the equally dull and stupid story. Deliver me from such! The veriest kingdom of the Prince of Evil that used to fright our childhood's dreams would be Elysium compared to the inanity and stupidity of this claptrap. And a half-day's enforced companionship with one of the readers would be punishment enough for a year of sin. No wonder there are so many mismarriages and ruined homes where such false and unnatural ideas of life are entertained! No wonder so many homes are blighted with drunkenness and dissipation, when the years that should have been given to the preparation for making life beautiful and full of true happiness is consumed in a tearful absorption in the fortunes of Geraldine and Gerald! By all means read some fiction, but let it be worthy the name. Every one should read at least two novels in a year; but let the fiction you read increase your breadth of vision. What more fascinating hours can be spent than in poring over Thackeray, Scott, Eliot, Hugo, and a few other choice spirits? Who would ever tire of "Les Miserables," "Vanity Fair," "Ivanhoe," "Romola" or "Daniel Deronda?" They are true to life. They speak sympathetically and truly of the joys and sorrows that we all know, and we are better for the reading. But the vapid stuff falsely called literature fills one with disgust to see men and women hanging upon their every word, as if the fate of a nation were at stake.

### STATE FAIR GRANGE REUNION

DEAR PATRONS:

The time is near at hand when members of our order from every section of Ohio as well as from adjoining states will turn their hearts and faces toward Columbus and the great Industrial Exposition, to be held in that city from August 26th to September 6th.

The program for our reunion will be along the line of former announcements. Bro. W. F. Hill, master of the Pennsylvania State Grange, is invited for Wednesday, August 28th, which day is in the first week of the Exposition. The twenty-eighth and twenty-ninth will be given up to social intercourse, experience meetings and sight-seeing. Prominent patrons from Ohio will be present both days to assist at the speech-making and hand-shaking. Let every one come prepared to give an account of the faith that is in him. Great profit to the order will result if this part of the program be carried out. On September 24th Brother Bachelder, lecturer of the National Grange, will be present and address the visitors. This will be his first lecture trip in Ohio, and thousands of our members should be there to welcome him and listen to his address.

Judge Huggins, of Highland County, is expected to be present during nearly all of the Exposition, and will be an unfailing recourse. Bro. S. H. Ellis will be on the grounds early Wednesday, the twenty-eighth, to act as host, orator and in all needed capacities until the close of the reunion September 5th. Bro. S. E. Strode will be ready at some time during the Exposition to entertain visitors. Brother Holman will be on hand to explain the business features of the order.

The final meeting of the executive committee will be held on Wednesday, September 4th, at which time the place of holding the next state grange will be decided. Proposals will be received previous to that time, however.

The board has generously placed at our disposal nearly all of the former administration building, so that we shall not want for space, as in some former years. The low railroad rates, the favorable season, the longer time and the many good things provided will, I am sure, invite a large number of our members to meet and greet old friends, "talk over matters of interest to our calling," and at the same time study the great Exposition, and so become familiar with the splendid resources of our state and the mighty progress made by our people along every line of human endeavor.

Fraternally,
F. A. DERTHICK,
Master Ohio State Grange.

If a man does not make new acquaintances as he advances through life, he will soon find himself left alone. A man, sir, should keep his friendship in constant repair.—Johnson.


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# A Novel Outdoor Frolic

BY E. A. MATTHEWS

THE first glow of surprise and delight in the bicycle has come and gone; we do not talk about it so much because we know it is a regular member of the family, and has come to stay. It has "arrived," as the French people say, and every day is more indispensable and as much to be counted on as any other part of society.

This year we must have a "Progressive Bicycle Outing," which will combine all the elements of a "regular good old time," for there is an old saying that "where you have young people, good health, nice things to eat, a jolly good-fellowship and all outdoors" you cannot fail of pleasure.

At the appointed time and place we will assemble; probably it will be on the porch-steps of some kindly matron, who will act as our chaperone. Of course, each girl is dressed in a pretty and substantial bicycle suit—for instance, a short wool skirt, shirt-waist, cool straw hat or soft cap, gay necktie, gauntlet gloves and sensible boots. By the way, there is nothing more winning, more wholesome-looking than a young girl in a well-planned outing suit. The ease of movement, the care-free grace with which she flits about, make her look far prettier than any ball-room costume. The boys, too, with fresh, delicately colored negligee shirts, bright ties, loose jackets or coats, sensible trousers or knickerbockers, and boots that bespeak their owners' good sense, have a look of all-around taste not seen every day.

While awaiting the other guests the hostess invites each comer to choose from a group of gaily trimmed baskets, those for the girls being tied with red ribbons, and for the boys with blue ribbons. These baskets are cheap, but pretty, being selected by the young girls and filled by them in such a way as to promise many surprises as well as a variety of refreshments, and sent to the place of rendezvous some time before the appointed hour.

The last guest now appearing, the group of young folks changes into pairs, and away they go! The shining wheels, gay ribbons and baskets and happy-faced riders make a picture well worth our admiration. The ride must not be too swift nor too long. There is generally some locality, some favored spot beloved of picnickers, shady, grassy and near the water, and there they halt to rest and dine. Frequently it has been arranged to send messengers on before to cook and wait upon the party, but those young people who wait on each other have a great deal more fun and are much more sociable. Let the boys make the fire and bring the water, and the girls make the coffee and serve the lunch.

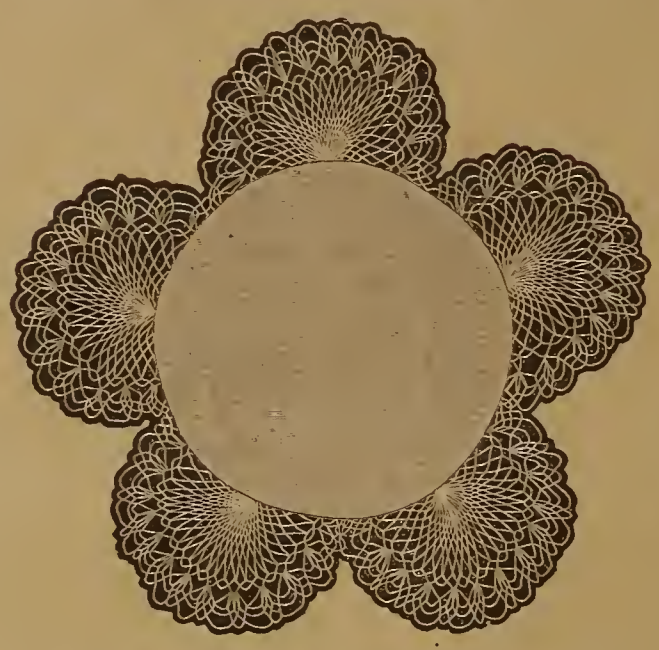
After many a rush and scramble, much good-natured talk and merry laughter, let all be seated on the grass, still in pairs as they came, and at a given signal each opens his or her basket. The viands are wrapped in waxed paper, each course separately. Perhaps the first will be some of the many sandwiches, of nuts or fruit, with olives and dill-pickles.

When the first course is finished another signal is given, and looking into the baskets each finds a package on which is pinned a slip of writing-paper. Each boy finds on his paper a conundrum or question concerning the bicycle, and on the girls' papers are written answers. According to the rule in all progressive games the questions hasten to find the answers, and thus all change partners for the second course. This course consists of delicate meats—perhaps fried chicken, thinly sliced ham or tongue, veal-loaf or pressed chicken—with Saratoga chips and small beaten biscuits.

The third course is preceded by another surprise in questions and answers, the fun increasing with the difficulties. For the third course have a salad, each share packed in a jelly-glass, with crackers; also some cheese-cakes or small fruit-tarts and a bit of jelly. Such dainties are hard to pack, and it would be well to place a square of pasteboard between them.

A fourth course, with its preceding conundrums, will finish the luncheon proper. Let this course be fresh fruits and dainty little cakes.

The dessert then comes—just crackers, cheese and coffee—and when the final pairing-off is accomplished it will be the jolliest hour of the day, for at the bottom of the baskets will be found more conundrums, on some papers an order to sing a song or tell a story, to make a stump-speech, and many other funny things. Of course, it is understood that the guests must obey the mysterious commands; so the young people sit about in the shade, upon the green grass or convenient logs, and thoroughly enjoy the sense and nonsense, the witty speeches and gay songs.



Prizes may be given to the one who gives the largest number of correct replies, to the one who invents the most absurd ones, and to the one who is too tired or too slow to give any reply.

This is a simple scheme for a "Progressive Bicycle Picnic," and one that may be changed in numerous ways. The tokens may be flowers, and each rose seek its sister rose, each violet or carnation its mate; or fruit, when the strawberry, cherry or June-apple finds its duplicate in another basket. Some parties would not enjoy conundrums, and would rather match quotations or find the authors of verses, or give songs and their composers.

Of course, the menu will be adapted to the place and season, or the customs of the young people interested. It would be a funny experiment to have the boys fill the lunch-baskets and plan the fete; and right here let me say that the girls would be surprised to find how well their escorts could manage.

The following conundrums were given at a recent picnic:

What part of the bicycle suggests a queer person? The crank.

What a watchman? The guard.

What a beautiful woman? The bell.

What a boy's sled? The coaster.

What table utensils? The forks.

What stingy people? The screws.

What a part of our luncheon? The nuts.

What a chiropodist? The toe-clips.

Which part of a bicycle would you choose for a picture? The frame.

Which part grows weary first? The tire.

Which part of the bicycle is also part of a pump? The handle.

Which could go around your neck? The chain.

Which part reminds you of the Ten Virgins? The lamp.

What reminds you of your grandmother? The wheel.

What is the lawyer's favorite part? The bar.

What part would suit the organist? The pedal.

Any boy or girl can invent much brighter conundrums than these; so try your wits and add some original ones, and you will all the more enjoy this outdoor sport. E. A. MATTHEWS.

## COMBINED FRUIT JELLIES

The later summer months are better for making jellies, as at that time grapes, quinces, plums and apples are in their prime.

Many housekeepers have found their grape jelly granulated and candied when it is brought out for use late in the winter. The abundance of grape sugar is the cause of it. If the grape-juice is combined either with rhubarb or apple-juice this will remedy it, using a third of either of the other fruits, and only three fourths of the quantity of sugar to the amount of juice.

While rhubarb alone will not jell, combined with apples it makes a very beautiful, clear, light-colored jelly. Laying a small rose-geranium leaf in the bottom of the tumbler before filling it with jelly imparts a very delicate flavor to apple jelly. For light-colored jellies none are so well adapted as green grapes, apples, crab-apples and rhubarb.

In making quince jelly care must be taken not to use the seeds or cores, as this produces a gummy, ropy jelly, not at all nice; only the clear fruit or the skins should be used.

Plums make a strong, dark jelly, much liked by some for use upon meat, and to those who do not fancy plums alone I would suggest using one third apple for a sauce or butter.

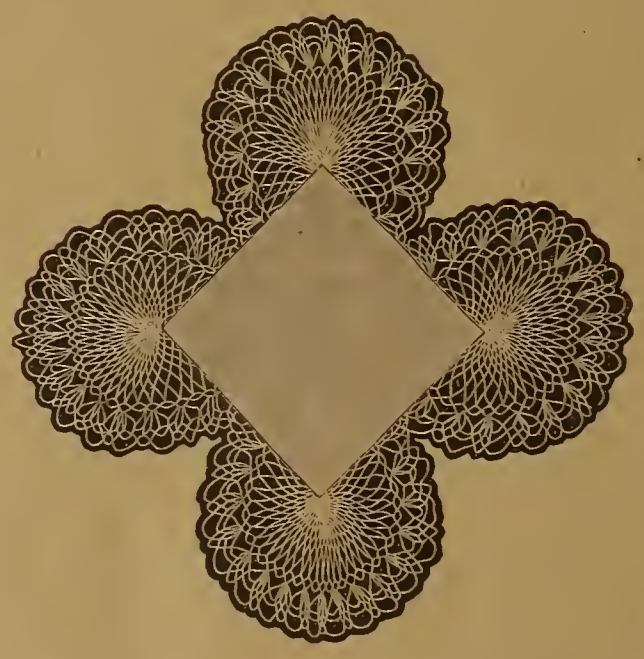
Ripe grapes are very rich in a special sauce. Pulp the grapes, cooking the pulps until you can remove the seeds either with a skimmer or through a sieve; then add the skins and use half as much sugar as fruit-spices to taste—cloves, cinnamon and nutmeg. Add to one gallon of the mess one half teacupful of vinegar, also. Cook slowly one hour, and seal while hot.

If you are in a locality where you can get barberries use rhubarb with them in making jelly, and you will always wish for more.

Blackberries, either plain or spiced, make a delightful jelly, and is one which is made with very little trouble, as it is a fruit that jells easily.

Jelly should never be stirred the least, as that frequently causes it to sugar or not to jell at all. Twenty minutes' hard boiling is sufficient for most fruits, and when it is poured into the glasses it should not be disturbed until it is stiff.

In using parafin for the top of jellies great care should be taken that the edges of the glass are perfectly dry, or the parafin will creep away from the edges, and insects or ants get into your fruits. I prefer the old way of covering it with a paper dipped in alcohol, and sealing it with paper. During the hot months it is best to keep jelly upstairs where it is very warm, as the least dampness causes mold. B. K.



## WITH PEACHES

PEACH TAPIOCA.—Soak one cupful of over night; in the morning cook in a double boiler in one quart of water until perfectly transparent. When done add one cupful of white sugar and one half dozen fine, ripe peaches, sliced thin. Serve with whipped cream.

PEACH PUDDING.—Pare, quarter and stone one quart of fine, ripe peaches, add sugar to taste, and put them in the bottom of a pudding-dish with two tablespoonfuls of water. Sift one fourth of a teaspoonful of salt in one cupful of flour, add slowly one cupful of sweet milk, and stir to a smooth paste. Beat the yolks of two eggs until thick, and the whites to a stiff froth, and then gradually add to the batter. Stir in one tablespoonful of melted butter, pour the batter over the peaches, and bake in a quick oven. Serve hot with sweet sauce or whipped cream.

PEACH SHERBET.—One pint of sugar and one pint of water cooked to a thin syrup. Soak one tablespoonful of gelatin two hours in water to cover, then add one half pint of boiling water, and stir until dissolved. Add the syrup, with one pint of mellow peaches pared and chopped fine. Freeze like ice-cream.

PEACH CUSTARD PUDDING.—Mix one cupful of bread-crumbs in one quart of milk, add one half cupful of white sugar, then the well-beaten yolks of three eggs and the stiffly whipped whites of two eggs. Mix, and bake until firm and brown; spread over the top a thick layer of pared and thinly sliced peaches, and cover with the whites of two eggs and two tablespoonfuls of white sugar. Return to a slow oven until of a pale straw-color. Serve hot.

PEACH FOAM.—Set eight fine, mellow peaches on a plate in a steamer, and steam until soft. Then strip off the skin, press through a sieve, and set on ice to chill. Beat the whites of four eggs and six tablespoonfuls of sugar until very stiff. Beat thoroughly into the peach-pulp, and heap it high in a glass dish. Cut blanched almonds into strips and strew thickly over the top. Serve very cold with whipped cream and sponge-cake.

WHIPPED PEACH CREAM.—Beat the whites of four eggs until very stiff, then beat in by degrees four level tablespoonfuls of powdered white sugar; add two tablespoonfuls of rich peach syrup (drained from preserved peaches), and stir in lightly one pint of sweet cream. Whip to a stiff froth. Everything should be cold, and keep the bowl standing in a pan of cracked ice while whipping. This makes a delicious dessert served with almond sponge-cake.

PEACH CUP-PUDDINGS.—Pare and rub through a colander sufficient fine, ripe peaches to make one pint of pulp; add the yolks of three eggs and one whole egg well beaten, one dessert-spoonful of flour mixed with four tablespoonfuls of white sugar. Mix thoroughly and put into cups. Place these in a dripping-pan nearly full of hot water, and bake in a moderate oven. Make a meringue with three tablespoonfuls of sugar and the whites of the eggs. Drop it in the cups just before the puddings are done, and sift powdered almonds over it.

MARY FOSTER SNIDER

## DOILIES WITH NETTED SCALLOPED BORDERS

Make the netted scallops in the following manner, using No. 50 ecru lace thread or No. 40 white thread, and a one-fourth-inch bone mesh and a coarse knitting-needle. For the doily with round center net 25 stitches over the mesh.

Second, third and fourth rows—Net plain over needle.

Fifth and sixth rows—Plain over mesh.

Seventh and eighth rows—Plain over needle.

Ninth row—Net 4 stitches over mesh in every other stitch of row.

Tenth row—Plain over needle.

Eleventh row—Use needle, net 3, skip 1, net 3, skip 1, to the end of row.

Twelfth row—Net 3, * wind thread around needle, miss 1, net 2; repeat from * to end.

This completes a scallop. Sew five of these scallops around circle of linen six inches in diameter after it is hemmed.

For the doily with four scallops begin each scallop with 33 stitches. Hem a four and one fourth inch square of linen (the one fourth inch is for the hem) and sew a scallop around each corner, as seen in the illustration.

For a trefoil doily make three scallops like those in the square one, and sew around a circle of linen three and one half inches in diameter after it is hemmed. MRS. J. R. MACKINTOSH.

## LEAVE FAITH

BY ELLA WHEELER WILCOX

Now if we lose our wealth, why, then
We'll up and at our toil again.
And if we lose our health, why, still
We have our great all-conquering will.
And if our friends prove but a reed,
Still have we God in hours of need.
But if we lose our faith, alas,
What poverty must come to pass!
Though wealth and health and friends were left
Our beggared souls would stand bereft
Before the great dark door of death.
Oh life, take all, but leave us faith.

## A THESIS MATRIMONIAL

IT IS perfectly natural that parents should feel an interest in their daughter's choice of a husband, and it is a foregone conclusion that they should use their influence that she may choose wisely and well in this most important step of her life.

If ever a parent has need to be wise as a serpent and as harmless as a dove it is when one sets about the delicate and dangerous task of piloting a daughter's craft into a safe and desirable matrimonial harbor. And while it is the obvious duty of parents to seek to influence their daughter in her choice of a husband, just as much as they would influence her upon any other vital decision, a good many parents who have undertaken the performance of this, their parental duty, in an unwise and injudicious manner, have learned to their sorrow that a too stringent interposition of authority will oftentimes fan the flame of a mild, maidenly fancy to a mutinous blaze of matrimonial folly.

But the question is, When should parents begin to exert their influence, or rather the discipline that will serve to mold a daughter's character so that she will be enabled to decide for herself in a manner that will meet with the approval of their wiser and more mature judgment. Usually the parents will wait until the coming man puts in an appearance and the daughter's fancy or affection, as the case may be, has become enlisted, and then if the suitor does not meet with their approval the merry war begins, and more than often the battle is lost to the parents simply because they did not begin operations in proper time and manner.

In nine cases out of ten the home-training of a daughter will bear fruit of good or ill in her choice of a husband. I do not wish to be understood that daughters should be reared to consider marriage as the end and aim of existence; but as mothers know that it is almost a foregone conclusion that their daughters will marry, I do believe that line upon line and precept upon precept the truth should be instilled into their minds that honesty and integrity, a clean life and Christian principles are among the qualifications which every woman who has a proper respect for herself has a right to require and expect in a husband, and not only this, but some visible means of support and some honorable occupation or profession is a necessary essential.

And then, too, daughters should be reared to have some interest in life apart from the pursuit of a husband; and should understand that the bachelor girl has a place in life that is far more desirable than the unhappy or discontented wife. And a wise mother will find time and opportunity to talk with her daughter upon this subject in a purely impersonal manner. The misery and the folly of some ill-advised or ill-sorted marriage may be made the text, and a comparison drawn between a home where the husband is anything but a desirable companion and one where the husband is all that a husband should be.

But fortunate indeed is the mother who is able to point her daughter to her own father as an example of all that is admirable and desirable in a husband; and fortunate is the father who is enabled to influence his daughter in a decision that stands for the weal or woe of a lifetime through her confidence in his love and her respect for his judgment.

A sensible girl who is capable of doing her own thinking ought to be able to understand that a handsome face and polished address are not the only desirable qualifications for a husband, or a sufficient guarantee of conjugal felicity.

And I do believe in love; yes, indeed, and I am sure that no true and satisfying happiness can come of a marriage with this "the greatest thing on earth" left out. Love should be the spiritual corner-stone of marriage, but a good many material things must be builded into the matrimonial structure that it may be a secure abiding-place for the little god of love, who all too frequently, when poverty looks in at the door, takes to himself wings and flies out through the window.

A young woman needs to understand that she need not be entirely passive in affairs matrimonial, and that she has the same right to pick and choose a husband from among the most desirable of her acquaintances that her brother has to pick and choose a wife.

"Oh, but you do not mean to say that you believe in a young woman doing the courting and making a proposal of marriage?"

No, I must confess that I am still bounded by old-time creed and custom; and, too, I admire a maidenly reserve and modesty, and believe that a woman should be wooed and not too lightly won; but a young woman should be reminded frequently, and have the truth impressed upon her mind and heart, that the world is before her, and that she has a perfect right to keep an eye to the windward and make use of just as much good, hard common sense in the serious business of choosing a life companion as she would in any other business transaction; and it is because young people fail to use this sense and judgment in matrimonial affairs that there is so much trouble and unhappiness in married life.

The young woman of to-day has no need to cheapen herself in the eyes of her admirers by being too eager to secure a husband, and the twentieth-century bachelor girl has little in common with the maiden lady of even fifty years ago; and while we do believe that a woman happily married need envy no one her lot in life, yet the wise mother will seek to impress the truth upon her daughter's mind that single blessedness is far preferable to an unhappy marriage, and that in this, the woman's age, she may even miss "the circumstance of matrimony" and yet live a life so full to overflowing with womanly duties and pleasures, of contentment and happiness, that she will never for one moment feel that she has "missed the mark of her high calling," because she has never worn the crown of wifehood.

Very often a father's advice will have more weight with a daughter than her mother's, especially if he has gained her love and confidence, and taught her to believe that he has her best interest at heart. In such cases when an undesirable suitor makes his appearance he will be able to say, "My daughter, my greatest desire is for your happiness. I know more of men and the world than you could possibly be expected to know, and I am sure that nothing but unhappiness could come to you through marriage with this man," and then leave his daughter to think the matter out for herself, and under these circumstances a sensible daughter will think long and seriously before she will make her decision contrary to such counsel and advice. MRS. CLARKE HARDY.

## GARNISHES

Smilax is an attractive decoration. It is extremely pleasing arranged in long vines on the table or about a dish of fruit. It was my favorite garnish while in India.

Pure white rice-balls were used there a great deal. They were arranged around the platters of curry or the plates of cold meat.

Sheep-sorrel, with or without lemon, makes a very pretty decoration.

Fowls appear to their best advantage if served with watercress.

Lemon sliced very thin is used with salmon, sardines, fish, turkey and salads.

Guava or currant jelly for fried oysters, cold tongue and roast veal.

Parsley, celery-tops and lettuce are always welcomed by the one who desires tasteful garnishes.

Gherkins cut crosswise are used with sliced corn beef.

Beets cooked, then sliced thin, or cold boiled eggs sliced thin, may be used with many of the dishes requiring garnishing.

Another favorite used in India was bread garnishing. The bread was cut in dice or heart-shapes; clarified butter was dripped over them and then they were put in the oven on a tin plate. In India our oven was a "Dutch" oven, but no doubt a common oven would answer every purpose.

"Baby" onions parboiled and then drowned in butter in the oven make garnishes.

Old-fashioned flowers are often made use of to add beauty to meats on the table. ELLA BARTLETT SIMMONS.

## TO REPLENISH THE PURSE

Although this department of FARM AND FIRESIDE is in nowise a poultry department, I cannot refrain from the impulse to talk along such lines a little right here. Such an army of girls whose homes are in the country are constantly fretting over imagined "environment," and are planning, talking and scheming to get away to the city, where, it seems to them, everything is bright and luring, money plenty, and "advantages" simply awaiting them.

But they have not been behind the scenes. They do not understand their own great advantages—do not grasp and make the best of the situations at their own doors. There are opportunities unnumbered, if made the best of, that will give to any number of our country girls money to dress well and to provide bicycles, carriages, books and music, and then leave them with plump pocketbooks the year round.

So far we have learned of but one woman in the poultry world who has carried her business to that point of extensiveness that she has been called a veritable queen of the realm she inhabits. This woman is called the turkey queen; but she has not a "corner" on turkeys, nor does she claim to have. And there is room in the world for any number more of turkey queens and duck queens and queens over all departments of poultry culture. That there is money in every department of the industry no one undertakes to deny.

This turkey queen is Miss Anita Martin, and she lives in her native state—Texas. Her beginnings were very small—just a gobbler and five turkey-hens; nor were her first year's attempts anything exceedingly flattering, but just sufficiently encouraging that she determined to do better the following year. She did do better, and then still better year after year, until now she is growing independently wealthy. Last year she made the comfortable little sum of twenty-five hundred dollars from her turkeys. And what girl would object to such an income as that, or even half that sum?

At first she hatched the eggs all with hens, but later she added incubators to the plant. She has raised acres and acres of grain annually to feed to her turkeys, and finds it no trouble to make sale of all her surplus turkeys at good prices. From wealthy people she takes orders at very fancy prices for turkeys for table use. These people of cultivated epicurean tastes care nothing for the price; they pay for such luxuries as they desire, and our turkey queen fattens such a number of turkeys as she can dispose of at fancy prices on nuts and other expensive and dainty foods. By this method of fattening the flesh takes on a dainty flavor. Besides, our turkey queen understands perfectly that fowls having unlimited range, though they may grow into hardier breeding and laying stock, grow to have hardened and toughened muscles, and the birds she intends for market are thus deprived of a very great deal of liberty, but are grown quickly into marketable shape. They are given the range of good yards and pens, and exercise enough to keep them in good health, but they are fed of the choicest and best growing foods, and when ready to fatten they are fattened quickly, that their flesh may be tender and soft instead of toughened and hard.

In all this work of turkey culture there is no secret at all. Attention to business and a perseverance in its many details have led to success. Turkeys are tender things until six weeks old, but at four months of age her turkeys are handled much like droves of sheep—they are turned out to pasture and she feds them but twice a day.

Farms all over the United States may be made places of business, where our country girls (bless 'em) may fit themselves to be earners of independence and possessors of money, dignity and grace, good manners and fine appearance. The city is not in need of them, and they are independent of the city. If only they could understand the blessedness of their independence—the blessedness of their own freedom and opportunities!

Did we have a few duck queens there would be better-supplied markets and better-filled pocketbooks among the country girls. Of a duck queen we have never heard, though of duck kings we have a few. Who will be the first to earn for herself the dignity and the independence of a financial kind of the appellation duck queen? It would be a position worth striving to attain.

Ducks are easily raised. Perhaps when it came to raising thousands of them annually it would be found quite a serious undertaking; yet so situated that we could we should not hesitate to make the attempt. We should not begin by establishing a large plant, but, as the queen of turkey culture did, make small beginnings and branch out cautiously, studying the ground and the business thoroughly as we go.

Of Pekin duck plants I know several on a small scale, and women are the owners of the plants, ducks and all. A right royal little income is annually theirs, considering the limited extent of the business in hand. In each instance the owner is a housewife, and has many duties involving upon her shoulders. One new beginner I know of made her first attempt at duck-raising last summer. By a manner of exchange she obtained three "sittings" of duck eggs of excellent, pure-bred Pekin stock. She paid out eighty cents cash for expressage on the basket of eggs. From the eggs she hatched thirty ducks and raised twenty-nine of them. Ten of them she sold at one dollar each, but not until she had secured from the flock feathers sufficient for a pair of large pillows, valued at the lowest estimate at five dollars. The present season she is adding to the plant by introducing new blood from the yards of the famous breeders of ducks known as "the father of Pekin duck culture in America." Besides this expense she has purchased wire netting two feet wide, has had large yards constructed, and has three hundred feet of fencing surrounding the strip of ground devoted to their use.

This is but a small beginning toward the large plant she expects to have at some future time. She loves the work, and she loves the ducklings and ducks. She enjoys the income they bring her, and the work all through possesses for her that charm that makes any business a success. The farm she considers far above the few pleasures and many trials and temptations of city life. She has seen enough of city life to satisfy her that life with limited means is far preferable lived amid among country surroundings. ELLA HOUGHTON.

## FRUIT PUDDINGS

APPLE PUDDING.—Peel and finely slice some sour apples, with which fill a baking-dish half full, sprinkling sugar and grated nutmeg over them; pour in one half cupful of water, and add lumps of butter. Make a batter of one cupful of sour milk, one teasponful of soda, a pinch of salt and one half cupful of raisins and currants mixed, with flour to make a batter stiff enough to spread over the apples. Bake in a moderate oven. Serve with sugar and cream.

RASPBERRY PYRAMID.—Make a light biscuit-dough and roll it out about one fourth of an inch thick. Cut out a circle the size of a tea-plate and spread thickly with raspberries; cover them with a circle about one inch smaller than the other, and continue until a pyramid is formed, having dough at the top. Boil this pudding in a pointed bag, well floured. Serve with hard sauce.

MRS. W. L. TABOR.

## COLD COMFORTS

CUBAN SYLLABUB.—Into two quarts of rich, fresh milk pour one half pint of lemon-juice, one half pint of strawberry-juice, a little rose or vanilla flavoring, and sugar enough to suit your taste. Mix, and beat to a froth with an egg-beater, and set on ice until time to serve. At the last moment pour in one pint of blanched and mashed almonds that have been soaked in claret. Serve in small glasses, with spoons.

A VILLAGE COBBLER.—Make enough tea for your guests, and set it on ice while preparing the other articles. To one quart of strained tea add as follows: The juice of three oranges and two lemons, one and one half cupfuls of best sugar, two boxes of hulled strawberries; when ready to serve pour the tea into a large pitcher containing cracked ice; add the fruit and juices, and over all empty one bottle of apollinaris water, and serve at once.

A MINT JULEP.—Bruise a lot of fresh spearmint, or peppermint if preferred (but the ordinary julip is made of common spearmint). Place the bruised mint in a glass and add two teaspoonfuls of powdered sugar, pressing it into the leaves with a silver spoon. Fill the glass with crushed ice and add brandy to suit the taste—perhaps a tablespoonful for a lady, two for a gentleman; pour from one to the other, and serve with a fresh sprig of mint standing in the ice.

FRUIT SHRUB.—For this drink use the fresh juice of any desired fruit or berry—raspberries, strawberries, blackberries, cherries, currants and other fruits in their season. Squeeze out the juice, place it in a porcelain-lined or granite pan, add to one pint two pints of powdered sugar, one half ounce of citric acid, one half ounce of tartaric acid and one pint of cold water. Set the pan over the fire and let it come to the boiling-point; cool, and add one half teaspoonful of lemon or pineapple essence. When ready to serve fill a glass with crushed ice, and over it pour three teaspoonfuls of the shrub.

A HOME-MADE SODA-WATER.—Over two pounds of granulated sugar pour two ounces of tartaric acid. Now rub one tablespoonful of flour with the same quantity of cold water until smooth as cream, add one more tablespoonful of cold water to this, and next stir it into the acid and sugar. Add to this one quart of cold water and the well-frothed whites of two very fresh eggs; flavor with pineapple, lemon or vanilla, and at once bottle and cork the mixture. Keep the bottle in a cool place—ice-box preferred. When ready to use fill a glass three fourths full of crushed ice; over the ice pour two tablespoonfuls of the mixture and a scant half teaspoonful of common soda. Stir rapidly and it will effervesce, and the foam will be rich and firm, so that the drink may be enjoyed at leisure.

CHOCOLATE FRAPPE.—Heat in a double boiler three pints of rich, sweet milk; at the same time melt in the oven one pound of sweet chocolate broken in bits and placed in an earthen pie-plate. When the milk boils stir into it the melted chocolate and enough sugar to suit the taste. Let this liquid cool, then stir in one pint of whipped cream; flavor with vanilla and, if liked, a dash of wine or brandy. Beat with a cream or egg beater, pour into the ice-cream freezer, and partly freeze; pack with more ice, and when ready put into glasses, and serve.

COFFEE FRAPPE.—Make a rich, strong coffee, strain, and sweeten while hot. When cold stir in a quantity of whipped cream, place in the freezer, freeze about half as solid as regular ice-cream, and serve in glasses. Tea frappe, lemon, orange and other fruit frappes are made in the same manner.

SUMMER NECTAR.—For this take one canful of pineapple, apricots or peaches or one pint of crushed fresh fruit or berries. Soak one tablespoonful of gelatin in one half pint of water. To the fruit add one pint of cold water. Now, after thoroughly mixing the fruit, sugar and water, add the gelatin; beat well, and set on ice or in the freezer until almost frozen, or until well set, which will be very soon if you use the best gelatin. Serve in small punch-glasses.

Orangeade, grapeade, raspberryade and other fruitades are made by first boiling one half pint of sugar with one quart of water, adding the juice, and setting the mixture on ice or partly freezing in the ice-cream freezer. Or serve by first half filling a glass with shaved ice and then adding juice.

A HOME-MADE MILK-SHAKE.—Take rich sweet milk, or half milk and half cream, sweeten to taste, flavor with vanilla, and add the well-beaten white of one fresh egg. Put in a Mason jar, screw on the top, and shake until it foams. Pour quickly into a large glass containing some shaved ice, and drink at once.

Home-made beers are easily made. Take one ounce of hops as a starter, and from it make all varieties.

GINGER-BEER.—Take two gallons of water, two pounds of granulated sugar, two ounces of pulverized ginger and one lemon. Slice the lemon thin into the water and sugar, then add the ginger. Now add the half pint of water in which you have steeped the hops, stir all together, and bottle, fastening the corks tightly. Use after a few days.

SPRUCE-BEER.—Use the hop-water and one tablespoonful of ginger mixed with one gallon of water. Boil together, strain carefully, put in one pint of molasses and one half ounce of essence of spruce. Now add one teacupful of yeast, and pour into a clean jar. Let it ferment for a few days, draw off, and bottle.

All kinds of fruit or berries make good vinegars by sweetening, adding twice their quantity of water, and setting aside to ferment. When clear serve in glasses of crushed ice.

A JUNE DRINK.—Stew cherries until soft enough to rub through a sieve; put juice over the fire, sweeten well, and stir into it a little corn-starch first well mixed with cold water. Stir carefully, as it will easily burn; when it thickens remove, and flavor with a little lemon-juice. Serve in glasses of cracked ice.

E. A. MATTHEWS.

## SOME SENSIBLE TRAVELERS

That women could, if they would, make traveling a simpler matter than they usually do has recently been proved to my entire satisfaction.

We all do a good deal of theorizing, but when it comes to the final trunk-packing how many have the courage to leave out every non-essential article? In our changeable climate it is not the simplest problem in the world to know what will be necessary and what not in the course of a few weeks. Here is the way one young woman solved it:

The day was hot past all telling; coaches were nearly empty, only a few through passengers being in evidence. Of these, two young women were from one of the Pacific states, had been to the Pan-American, and were then bound for one of our largest inland cities to spend a week or more in sight-seeing. We were mutually attracted, soon knew something of each other's destinations, and expressed our views on traveling or cited past experiences.

Said one, "We two are traveling together; left home early in June and expect to return in August." Then followed bits of narrative and happenings by the way until the subject of luggage was touched upon.

"Isn't it too bad we have to bother with trunks and valises on such a trip as you are taking?"

The young women laughed, and she whom we may call Miss Bright said, "I never before liked to travel. I have enjoyed every minute of this trip, and I think the difference is that I have brought no trunk with me."

"No trunk! And gone from June to the middle of August! How do you manage it?"

"I have a good-sized telescope, and in it a plentiful supply of shirt-waists and such clothing as is absolutely essential. This walking-skirt is the only one I have with me."

The lady was trim and stylish in a sailor-hat, well-fitting gloves and a well-hung skirt, the mercury at one hundred degrees in the shade, with car-smoke doing its worst.

"You are the very woman I have looked for all my life. I have seen it all on paper, but never before in living form. If I were a man I'd take off my hat to you. And your friend?"

"She has a trunk, because she expects to visit friends. But we check everything through as far as possible, and have no bother with it."

"Have you needed nothing that the telescope can't hold?"

"Nothing whatever; and there are articles I have not disturbed yet. We have taken in all the larger eastern cities—Washington, D. C., Cincinnati, etc." She told me the itinerary, past and to be, and my awe and respect grew apace in spite of laughing brown eyes and the frankest of faces.

"Instead of accumulating I am diminishing my luggage. I've sent home a number of things I need no longer, and will send more."

Here were two womanly women traveling alone, visiting strange cities, going when and where the spirit moved, staying a day here, a month there if they chose, and through it all as carefree as you or I would be on an afternoon jaunt across lots or taking a turn to the nearest store for an errand or two. That they will return to their homes rested in mind and body goes without saying. Their wholesome appearance and freedom from all unrest and worry is evidence of the success of their summer's outing.

This is not a case of limitless resource as to money. They were enjoying hard-earned dollars, but have planned their trip so carefully that no multi-millionaire could be more at ease than they.

"Simplify, simplify, simplify," might be our rule in more than one phase of life, and must be our rule if we expect to have a pleasure trip which yields any pleasure to ourselves or our friends.

BERTHA KNOWLTON.

## SUMMER VACATION

In nearly every occupation in life the worker is expected to take a summer vacation, and employers of men and women have learned that much of the success of the year's work depends upon this. Why does not the farmer and his family need this vacation as much as those engaged in other occupations?

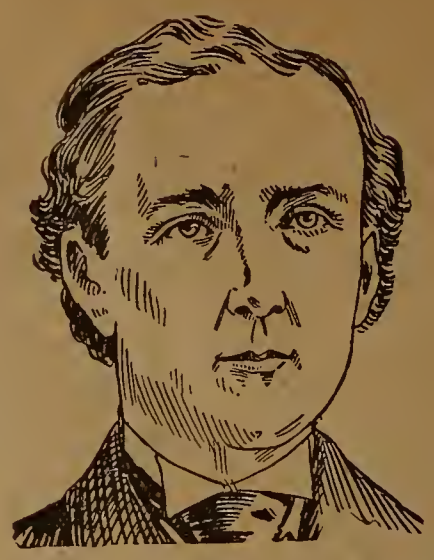
Yes, we will not deny they have plenty of exercise, but too often the farmer's wife takes hers almost entirely in the house, and the most of it in a hot kitchen where the fresh air is sadly lacking. What the farmer and his family need during their vacation is rest and change in their mode of life.

In August there usually comes a lull in the hurry of farm-work; haying and harvesting are finished, planting is over and the growing crops have been plowed, cultivated and hoed until there is nothing more to be done to them. This is the time for a vacation. It is not necessary to expend much money or to go very far from home to find a pleasant, restful spot in which to spend a little time.

There is nothing does us more good when the heat of midsummer is upon us than an outing in the woods. It is not necessary to have been cooped up in a city to be able to enjoy camping out. New experiences are found every day which the farm does not give, and there is an air of romance and fun connected with it which all appreciate.

"How does the family amuse themselves for two weeks in the woods?" says some one. Well, the father fishes, lies in a hammock and reads, takes long tramps with his children, who get better acquainted with him than during all the workaday part of the year; then, during the evening, after the children have gone to the land of dreams, he sits on the veranda in the moonlight and makes love to his wife as he did in the days of their courtship. The mother, with no household cares to speak of, has time to rest, to sleep long and soundly, to listen to the wonderful stories of the children about the secrets and mysteries of flower and bird and insect, which they are finding out. She has time to read her favorite magazine or a new book without thinking she ought to be at work; and last, but by no means least, time to talk with and listen to her husband as she has not since their honeymoon. Is it any wonder that they come back to everyday life healthier, happier and with renewed strength of body and mind to take up the work and care of life?

MAIDA McL.

# Wholesome Advice

**For People Whose Stomachs are Weak and Digestion Poor**

Dr. Harlandson, whose opinion in diseases is worthy of attention, says when a man or woman comes to me complaining of indigestion, loss of appetite, sour stomach, belching, sour watery rising, headaches, sleeplessness, lack of ambition and a general run-down nervous condition, I advise them to take after each meal one or two of Stuart's Dyspepsia Tablets, allowing the tablets to dissolve in the mouth, and thus mingle with the food eaten. The result is that the food is speedily digested before it has time to sour and ferment. These tablets will digest the food anyway, whether the stomach wants to or not, because they contain harmless digestive principles, vegetable essences, pepsin and Golden Seal which supply just what the weak stomach lacks.

I have advised the tablets with great success, both in curing indigestion and to build up the tissues, increasing flesh in thin, nervous patients, whose real trouble was dyspepsia, and as soon as the stomach was put to rights they did not know what sickness was.

A fifty-cent package of Stuart's Dyspepsia Tablets can be bought at any drug store, and as they are not a secret patent medicine, they can be used as often as desired with full assurance that they contain nothing harmful in the slightest degree; on the contrary, any one whose stomach is at all deranged will find great benefit from the use of Stuart's Dyspepsia Tablets. They will cure any form of stomach weakness or disease except cancer of the stomach.

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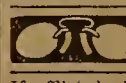

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### FORGIVENESS

My heart was heavy, for its trust had been
Abused, its kindness answered with foul wrong;
So, turning gloomily from my fellow-man
One summer Sabbath day I strolled among
The green mounds of the village burial-place;
Where, pondering how all human love and hate
Find one sad level; and how, soon or late,
Wronged and wrongdoer, each with meekened face,
And cold hands folded over a still heart,
Pass the green threshold of our common grave
Whither all footsteps tend, whence none depart,
Awed for myself, and pitying my race,
Our common sorrow, like a mighty wave,
Swept all my pride away, and trembling, I forgave.

—J. G. Whittier.

### THE BEST-BRED WOMAN

GENERAL SHERMAN, toward the close of his life, revisited the battle-fields in northern Georgia. In one of these battle scenes his memory seemed to be at fault. He could not identify the landmarks. A young forest with dense undergrowth had sprung up where once had been the level cotton-fields of an old-time plantation.

The General, after trying to find his way about, and only becoming more confused, turned aside and called at the nearest house in order to ask a few questions. An old lady with white hair and stately manner answered the summons, and when the General and his companions had explained their errand, offered to show them over the battle-field. So, with their guide, they returned to the edge of the woods, where she told them that the fields had not been cultivated after the war, so that the trees had grown and changed the aspect of the region.

With the aid of the guide the General was soon able to reproduce the battle picture, with its broad stretch of plantation-land, the sloping hillsides, the walls, fences and lanes. The charming old lady either nodded assent as he recalled the details, or else corrected him when his memory was less faithful than her own.

"Where was the beautiful mansion?" he asked. "It must have stood in that quarter."

The old lady nodded quietly. The General then described the picturesque plantation-house which had overlooked the battle-field, and with a shudder went on to tell how it had been plundered and set on fire after the fighting was over. It was a stirring account of the horrors of war. The victorious troops had been frantic with excitement, and the officers had not been able to restrain their excesses. The fine old colonial mansion had been left in ashes when the army resumed its march.

The white-haired guide said nothing until there was a convenient opportunity for talking about something else. Then she found her tongue and again astonished the General with the accuracy of her memory.

"You must have lived here before the war!" he exclaimed.

"Yes," she said, "I knew every corner of the plantation."

"Then you remember the old house?"

She was silent.

The General again referred to the wanton destruction of the house, and told how a fine old piano had been flung out of a bow-window, and family furnishings ruthlessly destroyed, until at last there was a revel of flame followed by blackened ruins. He sighed as he spoke, and explained how angry he was when the outrage was brought to his notice.

"Surely," he said, turning to the lady, "you must have seen the old house?"

"It was my home," she answered, quietly, when he seemed determined to have an answer.

General Sherman stared at her a moment, then made a courtly bow, taking off his hat.

"You are the best-bred woman I ever met," he said.

The compliment was well deserved, for while he had revived memories of perhaps the most bitter experiences of her life, she had not said anything to make him feel ill at ease.—Youth's Companion.

### A STARTLING ACCUSATION

The fathers of the American Constitution desired sincerely to construct the government in a way that would secure the judiciary department from the corrupting influences of political intrigue and personal ambitions and all other bad human qualities of character. The world has been told very many times that the success of the Fathers in this respect was worthy of the highest laudations. Imagine the people being rocked in fancied security that the courts are clean and honorable, and then suddenly tumbled headlong out of their slumbers by the president of the Bar Association of Iowa, who declared last week that the American courts are reeking with perjury. He affirmed that it will not do "to credit all false statements to lack of memory, visionary exaggeration, inability to see and understand things correctly, white lies, imaginary delusions and such like." He called with evident fearlessness for an attorney who has not seen the "guilty criminal pass out of the court-room acquitted and set free because of perjured testimonies. What one of us but has seen the rights of persons and of property sacrificed and trampled under foot, presumably under due form of law, but really and truly by the use of corrupt, false and sometimes purchased testimony." He declared that this condition is one of the direct causes of lynching, and quoted the sentiment of another, that the time has come when justice must wear a veil, not that she may be impartial, but that she may hide her face for shame. A few ministers and cranky reformers and editors have been saying these things for a long time; we are glad to have men who are closer to the evil than we are recognize and free their minds regarding it.—Wesleyan Methodist.

### WHEN A SAILOR DIES AT SEA

A funeral service at sea is a most impressive scene. All hands are dressed in white, called "funeral rig," consisting of blue cloth trousers, a white frock, and cloth tunic over the frock, with a black silk handkerchief bound around the left arm. The officers wear frock-coats and swords, while twelve marines form a firing-party.

When everything is ready the ship's engines are stopped, the ensign is hoisted half-mast at the peak or ensign staff, and the ship's bell is tolled.

The hands are mustered on the quarter-deck, and the four bearers, usually the dead man's messmates, bring up the body, which is sewed in a canvas hammock and laid out on a wooden grating.

The chaplain reads the funeral service, and then the bearers, followed by their messmates, walk slowly onto the quarter-deck with the body. On arriving there the grating is rested on the gangway, previously opened.

The body is wrapped in the national colors, and a signal-man attends to holding firmly to this covering, to prevent it going overboard with the body.

The bearers, with the exception of two, let go their hold upon the grating and step back. When the chaplain comes to the words "And now we commit his body to the deep" the two holding the grating tilt it upward, and the body falls into the waters.

The marines then form upon the gangway, and three volleys are fired into the air, the drummer each time sounds the "salute for the dead," the hands are dismissed, and the awful ceremony is over.—Columbian.

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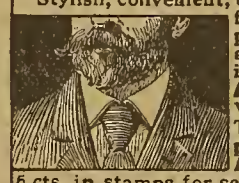

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# Creatures of Circumstance

BY FRANK H. SWEET

"I DO hope the cars won't run off the track nor nothin'," said Betty Sylvester, as she put the finishing touches to her sister's costume and stood back and studied the effect critically. "It's an audacious flyin' in the face of Providence to go to switchin' off behind of them engines that ain't like nothin' human nor divine. But there's your Aunt Beulah down sick in bed an' writin' to us, an' the land knows I can't go with all the farm an' cookin' an' cows an' three hired men here; an' they do say she's got a splendid house, with carpets an' bath-room an' all, an' we're the only kin. There, I think that'll do. Yes, it's a shame we've never been to see her, an' she bein' there twenty years, an' the last five all by herself. But it's a hundred miles, an' it stands to reason we couldn't go in a wagon, an' I won't be switched across the land by one of them snortin' things that ain't scasely been here a year, an' folks still jumpin' jest to hear 'em. Yes, that'll do," and stepping forward quickly she dabbed a little kiss upon her sister's ear. "Now, good-by. Be sure to write soon's you get there, an' don't get set up by the fine things in Aunt Beulah's house. I do hope nothin' will happen. But you're young, an' young folks like to travel round an' see things. You'll likely have a real good time, an' it's a shame Aunt Beulah's at death's door an' I never been to see her. But there! I must run back or them sweet pickle will plumb spoil on the stove. You look real pretty, Dorcas." And with this involuntary compliment Betty Sylvester hurried toward the kitchen, leaving Dorcas blushing and frightened; blushing at the unusual compliment, frightened at the prospect of her first journey on the cars.

She was pretty, as Betty had said; and this in spite of her thirty-five years and silver hairs that were stealing in among the soft glossy ones which clustered about her temples. Her complexion was still as fair as that of a young girl; and in her soft, brown eyes, habitually shrinking, lurked a mirthfulness that rarely braved the ordeal of speech. In contrast to the energetic, assertive Betty, people continued to regard Dorcas as a timid, sensitive young girl to be looked after rather than able to push her own way; and when by any mischance her age was remembered, it was with a sudden indignation that the formidable Betty should have kept suitors in the background so long.

And yet there had been a suitor—and, for that matter, was still. During the first five years he had confined his attentions to stolen glances across the fields and across the church, and on rare occasions, when his manhood had asserted itself, to an elaborate toilet and a half-hour's leaning against the Sylvester front fence, admiring Dorcas' posies and talking crops.

But with age came boldness, and for years now John Baldwin had been in the habit of braving the front gate, generally with a straw in his mouth, and of sitting on the steps for an hour in the gloaming talking with Betty, but looking at Dorcas. On cold evenings and during the winter the hour had been passed in the cozy sitting-room, playing checkers or popping corn. Not a word of endearment had been spoken, but it was understood in the house and in the whole neighborhood that John Baldwin was waiting on Dorcas Sylvester, and that some time in the future, as they should determine, the two good old country families and the two well-tilled farms would be united.

And now had come this great event of her life—a journey on the cars. Until within the past year the nearest railroad point had been forty miles away, and only a few venturesome women of the country and men whose business called them away, had adventured upon the swift mode of travel. But now a new line had located a station within ten miles of the Sylvester place, and railroading as a fearsome novelty had been done away with.

Betty had spoken of the journey freely and with unostentious misgivings; and John Baldwin had listened, and remarked that it might be a good idea for him to try to sell some cattle down there, as he had heard that fat cattle brought good prices in that section. It never occurred to him to offer himself as an escort for Dorcas. That would have been too audacious and precipitate. But what he said meant that he would have an oversight of the journey, and they so understood.

Until then Dorcas had shared Betty's apprehension; but from that time on, to the older woman's astonishment and perturbation, she veered round and laughed at all cautions and forebodings. And that it was not mere bravado to assuage her sister's fears was evident from the merry snatches of song she hummed while packing her hair trunk, and the unaccustomed light which danced in her eyes, and the color which came and went in her cheeks. Betty looked at her from time to time.

"The child's gone clean daft over the journey," she muttered to herself, apprehensively, more than once. "Somethin's sure to happen from such reckless disregard of the dangers ahead. She ain't no more suitable for goin' off than a baby; not a mite. If it wa'n't for Aunt Beulah bein' sick—well, I'm glad John'll be near to keep an oversight. He's steady an' handy, John is."

It never occurred to her that the prospect of John's being "near by" might have something to do with the humming and dancing eyes and flushing cheeks; that after fifteen years of being "waited on," the first time of being escorted, even though but a semblance, a being near by might mean something which she could not understand.

As she ran lightly down the steps to the farm-wagon Dorcas gave one quick, shy glance up the slope to where the big Baldwin house stood half hidden by its own towering elms. Yes, there was John's buggy standing in the road before the house, and John's horses were faster than any others in the neighborhood. He could reach the station in half the time they could with the farm-wagon and old Charlie. Besides, Betty had thought the hired man might as well kill two birds with one stone, so he was taking a load of produce along, which he would peddle after leaving Dorcas at the station. As she climbed up beside Jethro—who did not offer or dream of offering assistance—Dorcas thought how much easier it would be in John's springy buggy than in this heavy wagon, which jolted and rumbled over the rough country roads.

As the load of produce included eggs and milk, progress would be slow, and they had arranged for an early start; but before half the distance had been traversed they heard the sharp whir of John's approaching buggy-wheels. As he flashed by he was bending over in ostentatious search of something under the seat; but he gave her a sidelong glance which plainly said, "Don't be oneasy, Dorcas; I'll see things go all right." By the time he straightened up he was disappearing round a bend in the road. But the glance had sent a soft color to her face, which lingered there through the long, rough ride, until finally she was aroused by a gruff, "Jerusalem! Whoa, thar, Charlie!"

They were at the junction of two roads; one led up to the station, a fourth of a mile away, the other went on to the village, two or three times that distance. Jethro was looking at her with dismay on his face.

"What is it?" she asked.

"Your trunk. I clean forgot it. Ye see," hurriedly, "Miss Betty was pesterin' me so 'bout the things—so much for the aigs, an' so much for the taters, an' so much for this, that an' the other, an' not to trust one man, an' to let another have all he wanted even if he didn't have no money—that I got all broke up. I sot your trunk in the hall, an' 'lowed to put it in on top the crate of strawb'ries—but I didn't."

The color left her face. "My trunk! Why, Jethro, what shall I do?"

"Ain't nothin' to do but go on an' wait," stolidly. "I'll bring the trunk down to-morrow mornin' an' send it on by express. It'll cost fifty cents extra, an' Miss Betty'll bile; but thar ain't no other way as I can see. An' say, Miss Dorcas," persuasively, "d'ye s'pose ye could walk up fur's the depot? 'Tain't but a step. Ye see," apologetically, as he noted the surprise on her face, "Ben Pokey's waggin's jest turnin' the corner down yonder, an' if he gits in town ahead of me he sells his stuff, an' if I git in ahead of him I sell my stuff; an' if I sell my stuff like Miss Betty counts on, why, she's goin' to be easier on me for leavin' the trunk. See? Of co'se, I 'lowed to take ye clean to the depot, an' will now if ye say the word; but it's bound to put me in behind Ben. An' 'tain't but a step."

"Oh, I'll walk, Jethro," laughed Dorcas; and placing a hand upon the end of the seat she sprang lightly to the ground. "An' you needn't tell Betty, either." Then, quizzingly, "I wonder what she'd say if you made such a request of her?"

Jethro grinned. "I don't reckon I'd make such a request, Miss Dorcas. But I'm obleeged to ye, an' I won't forgit the trunk."

It was a very dainty figure that went up the road toward the station; and though she did not know it, the rich, soft goods taken down from the old chest in the garret had again come round into fashion. There was many a richly dressed dame going back and forth between Northern and Southern centers of wealth who would have been glad to adorn herself with some of these almost priceless things which a Sylvester had worn more than a hundred years before.

A whistle sounded in the distance, and Dorcas uttered a low cry of dismay. The train was approaching, and she had thought there was plenty of time. Could she make it by running, she wondered. But a swift glance toward the station checked the impulse even as she sprang forward. The station was still an eighth of a mile away, and she could see several carriages driving up to it, and people standing upon the platform. What a spectacle it would be for them to see a woman racing with the train; besides, she could not hope to reach there in time. Jethro—

But what was forming in her mind about Jethro was not completed, for there was the swift approach of carriage-wheels, a pair of splendid bays stopped almost beside her, and she looked up into the merry eyes of Judge Bledsoe, the richest man in all the country round.

"What, you, Miss Dorcas?" he exclaimed, springing from the carriage to her side. "I declare I didn't recognize you in that fine traveling-dress. I thought it some woman who was losing her train, and that I might be able to give her a lift. Here, let me help you in, quick! We'll get there in time. The train's got to round the curve yet." And without waiting for consent or protest he lifted her into the carriage, and they were whirling away, with a long, circling cloud of dust trailing behind.

"We'll fetch it, don't you worry, Miss Dorcas," he cried, reassuringly. "These horses have done the same thing more than once before now. Going visiting?"

"Yes; to my aunt's at Spartansburg."

"Spartansburg? Why, I expected to have brought a lady from my house to-day who would go on to Spartansburg; but she has a headache, and I'm to send a telegram instead. Niece of mine she is—a Mrs. Roche. Maybe you've heard of her. Married Roche, the cattle king. He's here looking up railroad stock. Thinks of buying this road and building a few branches out through the country to pick up farmers' produce. Big thing for the farmers—and for Roche, too," laughing. "But here we are, and there's the train, waiting for you. Couldn't have timed ourselves better. Hope you'll have a nice visit. Fine place, Spartansburg."

He helped her from the carriage, and then started with her across the platform toward the train. But only for a few steps. Then he hesitated, started, turned red, and excusing himself hurriedly slipped back to his carriage.

"Good joke," he chuckled, as he gathered up the reins. "Best joke I've run across for a long time; and on Roche, too."

Dorcas wondered a little at his abrupt departure, but thought that perhaps his horses were becoming restive at sight of the train. Beyond that she noticed nothing strange, unless it was the excessive courtesy and politeness of the trainmen. She had supposed that on a big train like this the officials would be hurried and perhaps a little gruff; but here were several in uniform coming toward her with hats off, and there was a black man placing a stool below the steps of what a quick glance assured her was the finest car in the whole train; and most of the men on the platform were looking at her, and many of them had their hats off. Apparently she was the only woman passenger from this station, and they were being just as nice to her as men could be. She even had a suspicion that the train had been held several minutes, for it had reached the station before the carriage.

One of the men in uniform preceded her up the steps, and ushered her into an apartment which made her lips part in a low exclamation of surprise. Why had not John told her about all this elegance? He had been in a train several times. She sank luxuriously into the chair that was obsequiously turned for her, and placed her feet upon the soft cushion the porter drew out from somewhere beneath. Then the conductor bent over her chair.

"I am sorry this is all we have for you," he said, apologetically. "We only learned of your intention after our train pulled out, and then this was the best chair we had left. We reserved it for you."

Reserved it for her! The flush in her cheeks grew a litle warmer and her eyes more bright. She had not thought herself of so much importance. Of course, the people of her own neighborhood knew of the intended journey; but that the news could travel so far, and be held of sufficient moment to insure a looking ahead for her comfort, she had not dreamed possible. It certainly was nice. They treated her as courteously as they could a passenger who traveled with them every day, instead of as one who was making the first trip of her life.

Among those who had seen her alight from Judge Bledsoe's carriage was John Baldwin; and he left his position in the background in order to see her more plainly, and perhaps to allow himself to be seen. But he had no idea of going forward to embarrass her by speaking before all this crowd of people. After she entered a car he would follow, and he would seat himself near enough to be useful in case of need.

When the officials went to meet her his face glowed with pleasure. It was almost like a tribute to himself to have people who had seen the world acknowledge his good taste. Of course, he knew how sweet and womanly Dorcas was, but he had not supposed that other people would percieve it so surely and instinctively. Train officials did not show such deference to ordinary women; he had seen enough of car life to know that. But when he saw them usher her into the best car in the train, bowing and deferential, his pleasure became mixed with a certain degree of wonder. They could not treat the president's wife better than that, he thought. Of course, the Sylvesters were an old family, once honored; but people nowadays were generally too busy to care for what a hundred years had laid aside. Nevertheless he followed her to the car with a new feeling of tenderness not entirely unmixed with deference; and running through it was a conviction that somehow he was being left out—he, the escort, was not even known as such, and strangers were doing the things that he should do. The train was already in motion when he sprang up the steps and sought to enter the car. The conductor was standing inside the door.

"This is a parlor car, sir," he said.

"Oh, that's all right," John answered, quickly. "Extra, I suppose?"

"Of course, But I doubt if there's any unoccupied space. Porter!"

The car attendant was just returning from Dorcas' chair. He stopped inquiringly, dusting-cloth in hand.

"Have you any spare seats?"

"Jes' one, sah. Down t'other end."

"Very well. Give it to this gentleman."

The conductor turned as he spoke and preceded him a few paces down the car, then stopped and bent over the chair of a lady.

"She put her hands into his, naturally and impulsively"

As he passed John saw that the lady was Dorcas; he also saw that Dorcas had not perceived him. He followed the porter through the car, hat in hand, with a feeling that he was intruding into some one's drawing-room. Ladies and gentlemen were seated or reclining in various attitudes, some reading, some talking, but most with their attention just now fixed upon the chair over which the conductor was leaning. John had never been in a drawing-room before; but even amid all this elegance and among these strangers he perceived that Dorcas was understood and appreciated better than he had understood and appreciated her himself. He heard a subdued "Who is she?" from one side, and a "Don't know, but evidently a somebody," from the other.

His face had glowed at the deference shown her; now it grew pale. These people realized that she was no ordinary person: the train itself had been held for her; while for him, John Baldwin, farmer and gentleman, the conductor had not even remembered that he had a spare chair. He turned this chair so that he could watch her and still not be especially conspicuous. But he soon realized that his watching eyes was not likely to be noticed; many in the car were doing the same. The conductor or porter was at her chair every few minutes trying to devise some new means for her comfort—curtains were drawn or raised, a ventilator opened to let in more air, the windows closed to keep out a draft; even the paper-boy seemed to catch the infection, for he was continually leaving periodicals for her to examine at her leisure.

John watched with mingled feelings of surprise and pleasure, and perhaps with some depression. He contrasted her with the other women in the car, and to his mind the comparison was in every way to her advantage. Heretofore he had looked upon her as in a way belonging to him; now, with the entire car paying her homage, he wondered at his audacity. He wished that he had pressed his suit more assiduously, and marveled at his presumption in pressing it as strongly as he had.

The conductor came through the car, and a man in the next chair reached out and touched his arm.

"Can you tell me who she is?" he asked, in a low voice. "The car seems to be getting curious over so much attention."

The conductor answered in a voice equally low, but John caught the words.

"Mrs. Roche, wife of cattle king Roche, you know. He's making a deal for our railroad; that's why our management is anxious to show him attention. We had notice that she would take our train at a certain point, and for us to show her all the courtesy in our power. Seems a very nice woman, but a little— just a little—too pleased with everything. Gives one an impression that she hasn't traveled much. But I have heard that Roche made his money very suddenly, so perhaps the attention is a little overwhelming."

John had turned away before this, and was again watching Dorcas. At first he had thought that the man might be asking about her. He had heard that a man by the name of Roche was negotiating for the railroad, but had felt very little interest in the matter. As the conductor moved away, however, he allowed his glance to wander down the car, finally fixing upon a richly dressed woman in the chair beyond Dorcas as the one who was overwhelmed by attention. She did look self-conscious, and, he thought, just a little supercilious, too. He glanced from her to Dorcas with a glow of pride. Dorcas did not look self-conscious or embarrassed in the least. No one would suspect that this was her very first ride in a train. He wondered what the conductor and other men really thought. That she was some distinguished person, evidently, from their deference and assiduous courtesy. Even Mrs. Roche herself was not looked after so attentively. Indeed, but for what the conductor had said he would not have thought of any one in the car **except** Dorcas as being in receipt of any special deference. He wondered if he would be able to approach her again on the same old friendly footing, or would he feel it necessary to bow and smirk like the train conductor and his men. That fellow— He reddened suddenly at his own thought, and turned abruptly and looked through his window. For the first time in his life he had flinched under a twinge of jealousy, and of a man who was a stranger to them both.

But Dorcas was delightfully unconscious both of his thoughts and of the marked deference which was being paid her. It was so beautiful and so different from anything she had imagined. She had made up her mind to be frightened, and she was not frightened a bit; the motion of the train was so easy and exhilarating, and the country which flashed by the window so beautiful. She had expected to be wearied by the long journey of a hundred miles; but the minutes and hours flew by so rapidly, so delightfully, that when "Spartansburg" was called by a brakeman she started incredulously, and would not be convinced until the conductor and porter came to assist her from the car.

As she stood on the platform watching the train glide away she saw John coming toward her, not slowly and diffidently, as was his wont, but with head erect and both hands out. And somehow, after the experience of the last few hours, it did not seem strange, but rather a natural sequence of all the rest. To have seen him awkward and ill at ease just then would have been a shock. It was so much nicer for men to be easy and courteous, and John was king among men.

She put her hands into his, naturally, impulsively.

"Oh, John," she breathed, "wasn't it beautiful! I never imagined it could be so nice in a train. Why didn't you tell me?"

"Well, I don't reckon I knew," he acknowledged, frankly. "I was never in one of them cars before, an' 'tain't so awful nice in one of the others when it's crowded with all kinds of folks. I was sort of 'fraid ye mightn't be able to get any seat at all. Folks don't always. But we'll know better another time. An' say, Dorcas," still holding her hands and allowing something to come into his voice which she had never heard there before, but which brought a soft color to her cheek, "you looked awful pretty in them nice clothes, the prettiest I ever seen. There wa'n't a woman in the car who could touch you in looks, not even the one who's to buy the railroad. I jest set and looked at you, and wished I'd got things settled more solid, an' wondered if I'd ever dare to speak to you at all. But I jest can't wait no longer, Dorcas," his voice quivering with suspense; "not a minute. Do you s'pose you could learn to love me a little—not all at once, you know, but just a little along as you can? I didn't 'low to be so hasty an' inconsiderate, but that ride seems to have stirred me all up somehow. But don't you feel upset, Dorcas. Jest take all the time you want to think it over, dear."

The flush deepened. Did she hear aright? Had that last word really come from John's slow lips? Truly he was progressing.

"I don't need any time to think it over, John," she answered, in a low voice, but firmly. "I do love you."

She might have added that this answer had been ready and waiting for him more than ten years.

"No; do you really, Dorcas?"

He made an impulsive movement, but was suddenly conscious that the platform was well filled with people, and that some of them were looking at him curiously.

"I'll get a carriage for you, dear," he said, hurriedly, "an'—an' I guess if you don't mind I'll ride along. I never have rid with you yet—not right clost by, you know."

When the carriage was procured, and he had helped her in she looked up into his face.

"I don't believe I shall ever forget that train-ride, John," she said.

"Nor me," heartily. "Settin' there watchin' you an' seein' all them men round made me hasty an' inconsiderate; but I'm glad of it now. I 'low it might have been a right long spell 'fore I felt I'd a right to speak. We'll go in them cars whenever you feel like it now, Dorcas, an'," making a grimace, "I won't set 'way off 'tother end lookin' at you between people's heads. They don't cost nigh as much extra as I'd 'a' thought."

She turned to him suddenly, her face paling.

"Oh, John," she whispered, "I—I never paid them. You told me about gettin' a ticket; but I was late, and they hurried me to the car an' was so nice to me that I—I never once thought about payin'. What shall I do? An' they was so awful nice, too."

He looked puzzled. "Well, it does seem sort of funny," he acknowledged. "Gener'ly they're pretty partic'lar 'bout the pay. I wonder they didn't ask you."

"They didn't want to hurt my feelin's, John. They was awful nice. But I'm so ashamed."

He considered a moment. "You—we don't want to be beholden to 'em any," he said at length, warmly. "I reckon I'd better meet that same train to-morrow an' settle with the conductor feller."

"If you only would!" in a relieved voice.

So the next day John was at the station, and when the polite conductor reached the platform was the first to accost him. A few minutes and the puzzled look left his face, and presently he turned away chuckling.

But he only told Dorcas that there had been a mistake, and that the conductor had accepted the money and asked to be remembered to her.

## THE SEA-GULLS

Oh, the sweeping swing of the blue-gray wing
As they circle before the eye,
And the swerving dip of the breast adrip
Of the gulls that seaward fly!
They hang and balance, they waver and float,
With an idle air and an aim remote,
Then suddenly cleave the sky!
And naught know we of their query or quest
As they pause a breath on a blue wave's breast,
Or the secrets hid in the closing blue
Where they sail and sail, and are lost to view.

Oh, the fret and worry, the cark and care,
They stifle us here ashore!
Oh, to breathe aloft in the swift free air,
Away from the world and its grim despair,
To be fetterless evermore;
To follow to bournes of the fabled spring,
Where youth's gay fountains lisp and sing,
And oh, for the chance of that wild, free lance
Of a bird with a tireless wing!

Hear the tern's coarse cry as the clouds loom black,
As the whitecaps surge on the tempest's track,
These warders of sea-farers' fate,
Ahover at Dame Carey's gate.
The white sails scurry! The winds blow strong!
Hear them shriek aloud their discordant song,
"Beware the sea! Beware the sea!
Man's implacable enemy!"

Song the bold young Vikings heard,
Far in the North, from the warning bird;
Song of the years on the vacant seas,
Far as the earth's antipodes.
This witches' bird with the moan of man,
This gray, old, wand'ring charlatan
Hath kept in calm and in booming breeze
His watch with the ghostly, changing seas.

—Nancy Eaton Woodhouse, in the Criterion.

# The Lieutenant's Awakening

BY WILLIAM FORSTER BROWN

"HAL," cried an imperative voice from the house, "I want some eggs to finish my cake; run and see if you can't find some in the hay-mow; hurry now! Ethel, your mother wants you right off; she's going to Athol."

Barefooted, freckled-faced Harold came back with a jerk from his contemplation of distant, misty old Monadnock to the prosaic life of the farm.

"Oh, Ethel," he cried, all the vague unrest in his heart shining in his eyes, "I wish I could fly like the birds, over the woods and hills to the sea. How glorious it must be to toss on the long, heaving swells and feel the dash of the salt spray; perhaps in the navy, rushing to victory through the smoke and thunder of the great guns, the flag coming down on the enemy's ships while your crew cheer like mad! If only I had a chance! I hate this old farm." He turned toward the barn behind him, dragging his toes reluctantly through the yellow dust of the country road.

"You have got a chance," the girl replied, quickly; her earnest, high-bred face alight with enthusiasm. "You've got health and brains, and that's all Farragut had, or Dewey. They had to work for their success. The man who took New Orleans began as a cabin-boy—that book of yours says so. You must study as hard as ever you can, and I will ask father to help you get into Annapolis. Father was a farmer boy once, you know, and now he is a senator. He had no one to help him, either. Fussing won't help you," she called back, as she sped up the path.

Harold dug viciously into the fragrant hay. "It's all very well for Ethel to preach," he said, ruefully, to himself, "but I'll bet Farragut or Dewey didn't have to hunt eggs or plow, and milk over and over again. They wouldn't have done it—no, sirree!"

The old barn was very quiet and still, and presently Harold desisted from his fruitless quest, and pulling a book cautiously from his pocket, laid himself prone upon the hay, and in a twinkling was in far off Manila Bay, standing with Dewey on the bridge of the Olympia. The waiting cake vanished utterly from his thoughts.

Throbbing and shivering beneath him like a frightened racer, the torpedo-boat tore through the waters as Lieutenant Brenton, with every muscle tense, peered through the little slit in the conning-tower into the gloom, at the two narrow bars of light that flashed sword-like back and forth across the blackness—the search-lights of the Majestic. Once let that fatal shaft touch them and—

One minute—two—and still that awful sword-play passed them by. Lieutenant Brenton shut his jaws grimly. "Now," he whispered, hoarsely, into the tube. Like a living thing the boat sprang forward, the dim whiteness at the bow rising higher and higher; another minute—he could almost see the outline of the big black mass ahead, and impulsively his finger pressed the button on the wall beside him. A dull cough from somewhere beneath his feet answered, the quartermaster gave the shining wheel a sudden turn, and the deck reeled under their feet as the boat swerved from her course. Brenton drew a long, shuddering breath, and held it, rigid with suspense.

All at once a single high-pitched cry of mortal terror rose on the night, followed by a leaping pillar of flame, not a thousand yards to port of them—then a sudden, thunderous crash. Brenton leaned limply against the steel wall. "It is done," he cried, triumphantly; "the Majestic's blown to—" He sat up suddenly, rubbing his eyes, dazzled by a flood of light from the open door at the end of the hay-mow. A figure clad in overalls, wearing an enormous straw hat was bending over him, holding a glittering milk-pail.

"Well, son," said the figure, quizzically, "have you come back at last? I thought that last thump would fetch you or go through the bottom of the pail. It's time to milk and—Where's your mother's eggs?"

The destroyer of the Majestic rose slowly to his feet and hung his head guiltily. His father stooping picked up "Boys Who Have Become Famous," a picture of the hero of Manila conspicuous on the open page.

"Hal," he said, gravely, "did it ever strike you that these fellows whom you admire so much never became famous by sleeping on duty, but by doing it, even if it was only hunting eggs? It isn't all fighting and glory. Think about that, my boy, while you're milking. I had to get mother's eggs myself."

Harold slid thoughtfully to the barn floor and started for the milking-stool, and it seemed to him that every hero in his cherished book was looking at him in silent scorn. "We did our duty," they whispered.

He stopped for a minute in the wide barn doorway to watch the purple shadows creeping up the sides of darkening Monadnock, and something—he knew not what—brought the tears, hot and stinging, to his eyelids. Dashing them away, he turned his back on the beckoning mountain and walked resolutely, with squared shoulders, in the direction of the clanking cow-bell. "On duty," he muttered, firmly.

## JOHN BURROUGHS—NATURE LOVER

Fifty or sixty years ago there was living up among the hilltops of the Catskills, in the little town of Roxbury, a boy known to his home folks and the neighbors as "Johnny" Burroughs. He was a true country boy, acquainted with all the hard work and all the pleasures of an old-fashioned farm-life. His people were poor, and he had his own way to make in the world, but the environment was on the whole a salutary one.

He had always had a great affection for the place of his birth, and he takes pleasure in the fact that his native hills are within sight from his present home on the Hudson near Poughkeepsie. Two or three times every year he goes back to them to renew his youth among the old familiar scenes.

The Burroughs farm-house is in a wide upland hollow, commanding a fine panoramic view across a low valley eastward. Beyond the valley rise the great hills which, along the blue horizon, look like vast waves rolling in from a distant ocean. Nearer you see thin details—the fields and patches of forest that checker their slopes, and the drifting of the cloud-shadows that add intricacy to the pattern.

The boy, Johnny Burroughs, was very like the other youngsters of the region in his interests, his ways and his work. Yet, as compared with them, he had undoubtedly a livelier imagination and things made a keener impression on his mind. In some cases his sensitiveness was more disturbing than gratifying. When his grandfather told ghost-stories to the children gathered around the blaze of the kitchen fireplace John's hair would almost stand on end, and he was afraid of every shadow.

He was decidedly averse to being out after dark, and there was a gloomy place under the barn that scared him even in the daytime. He used to send his dog under there to drive out the hobgoblins when he was about to work in the barn, and then he would work like a beaver to finish before the dog got tired of his part of the performance. Burroughs was well started in his teens before he outgrew his fears.

John went to school in the little red schoolhouse across the valley, and as he grew older he aspired to attend an academy. He had to make the opportunity for himself, and only succeeded in doing so at the age of seventeen, when he raised the needful money.

When his student days were over he went back to the home farm and worked in the hay-fields till autumn. Then he borrowed money to take him to Illinois. Near Freeport he secured a school at forty dollars a month, which was wealth to him. Yet he gave up his position at the end of six months. "I came back," he says, "because of the girl I left behind me; and it was pretty hard to stay even as long as I did."

He got a school near home, and held it for several years. At the age of twenty he married on a total capital of fifty dollars—a sum which was reduced about ten dollars by his wedding expenses. During the first year his wife continued to live with her family, while Burroughs taught at a town sixteen miles distant. Each Friday he closed school early and walked the long road, nearly all the way in the forest, to stay over Sunday with his wife. On Monday he would start back at three o'clock in the morning.

Until he was twenty-five years old his interest in nature and his aptitude for keen observation lay dormant. It was awakened by reading a volume of Audubon, which chanced to fall into his hands while he was teaching, in 1862, near West Point.

Meanwhile the Civil War was going on, and it aroused in Burroughs a strong desire to enlist. He visited Washington, but what he saw there of army life rather damped his military ardor. It seemed to him that the men were driven about and herded like cattle; so, when a peaceful position in the Treasury Department was offered him, he accepted it, and for nine years was a government clerk.

At the Treasury he guarded a vault and kept a record of the money that went in or out. The duties were not arduous, and in his long intervals of leisure his mind wandered far afield and dwelt on the charm of flitting wings and bird melodies. And, sitting before the Treasury vault, at a high desk, and facing an iron wall, he began to write. There was

no need for notes. His remembrance was all-sufficient, and the result was the essays which made "Wakerobin," his first book.

By 1873 Burroughs had had enough of the routine of a government clerkship, and he resigned to become the receiver of a bank in Middletown, N. Y. Later he accepted a position as bank examiner in the eastern part of the state. But his longing to return to the soil was growing apace, and presently he bought a little farm on the western shores of the Hudson, and called it Riverby. He built a house and started orchards and vineyards, but not until 1886 did he feel that he could give up his government position and dwell on his own land with the assurance of a safe support.

The house which he built for a home has never been a wholly satisfactory working-place. He must get away from conventionalities, and he early put up on the border of his vineyards a little bark-covered study, to which it has been his habit to retire for his indoor thinking and writing. He still uses this study more or less, and often in the evening sits in an easy-chair, under an apple-tree just outside of the door, and listens to the voices of nature while he looks off across the Hudson. But the spot that of late most engages his affection is a reclaimed woodland swamp, back among some rocky hills, a mile or two from the river. A few years ago the swamp was a wild tangle of brush and stumps, fallen trees and murky pools. Now it has been cleared and drained, and the dark forest mold produces wonderful crops of celery, sweet-corn, potatoes and other vegetables.

On a shoulder of rock near the swamp borders Burroughs has built a rustic house, sheathed outside with slabs and smacking in all its arrangements of the woodlands and of the days of pioneering. It has a great fire-place, where the flames crackle cheerfully on chilly evenings, and in which most of the cooking is done. In really hot weather, however, an oil-stove serves instead. There is a delightfully cold spring on the other side of the hollow, and immediately back of the house is a natural cavern which makes an ideal storage-place for perishable foods.

The descent to the cavern is made by a rude ladder, and to see Burroughs coming and going between it and the house has a most suggestive touch of the wild and romantic.

He is often at Slabsides, sometimes for weeks or months at a time, though he always makes daily visits to the valley to look after work in his vineyards and to visit the post-office at the railway-station. He is a leisurely man, to whom haste and the nervous pursuit of wealth or fame are totally foreign.

He likes the comfort of old clothes and old shoes, he likes to loiter in the secluded lanes and byways, and when he gets a hint of anything specially interesting or new going on among the birds and little creatures of the fields, he likes to stop and investigate. He has a keen ear and a quick eye, and much which to most of us would be unperceived or meaningless he reads like an open book.

He has the power of imparting his enthusiasms, and what he writes is full of outdoor fragrance, racy, piquant and individual. There may be other authors who are just as accurate observers, but none of them has Burroughs' fresh and original way of putting things. His snap and vivacity are wholly unartificial. They are a part of the man—a man full of imagination and sensitiveness, a philosopher, a humorist, a hater of shams and pretension. Such is John Burroughs, good farmer and delightful nature essayist, whom to read is to esteem, and whom to know is to love.—Clifton Johnson, in Saturday Evening Post.

### A MATRIMONIAL QUESTION

Should a man make a home before he asks a woman to marry him, or should he marry first and let the home-making follow the wedding? This is rather a nice social question, and it is entertainingly discussed in J. P. Mowbray's article, "The Making of a Country Home," in "Everybody's Magazine."

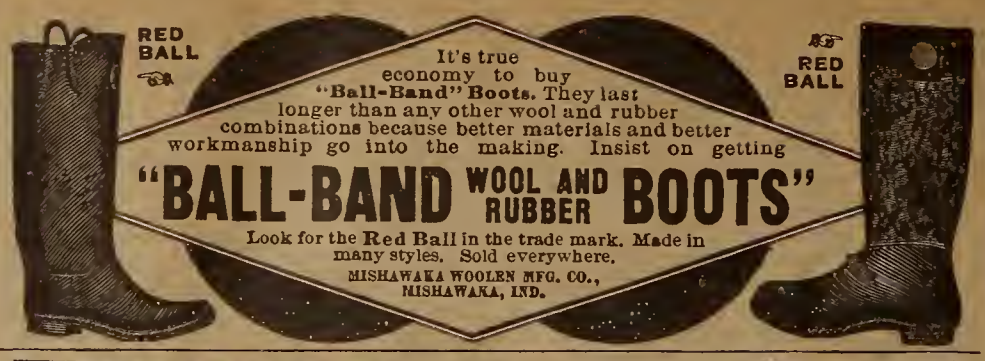
Discussing the limitations and the helplessness of life in a flat under conditions that seem to prescribe a rise John Denison says to his wife:

"A man ought to reach his goal before he takes a wife, for the more he loves her the more of a handicap she is. Don't you see that?"

"No; I don't see it at all."

"But you understand that he will not take any risk when he is married; would rather plod securely than conquer at his peril. I ought to have made a home fit for such a wife as I have before I married her."

Then she laughed one of her copious mellow laughs. "I think you have got that wrong, John, upon my word I do. Homes do not produce wives or lead up to them. It's just the other way, it seems to me. The wives produce the homes. Young men, as I understand it, think just about as much of making a home before they get a wife, as they think about making a flying trip to the moon. Why, it would be just too ridiculous, John, to see a young man building a home and furnishing it, and then expecting a wife and baby to drop in because it's ready, as the wrens do. You know yourself you never would have had a home like this if you hadn't got married. How could you?"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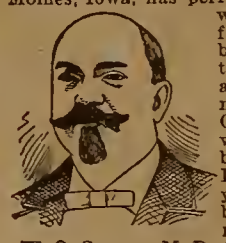

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See article in THE WORLD'S WORK Magazine for August.

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## MAUD MULLER IN KANSAS

Went out on the prairie to rake some hay.
Her father was shy of a hired man, so
Miss Maud, though she kicked, was obliged
to go.
She raked for a while, then began to think;
And her thoughts were so hard you could
hear them clink!
For man-uel labor gave her a pain
And she longed to skip from the Kansas plain.
She oft had read in the "Busy Bee"
Of Colorado where women are free.
She'd read how her sex was allowed to vote
And in lodges to ride the mystic goat.
She almost determined to give the shake
To the ranch-girl's burden, the old hay rake,
And flee to the suffrage paradise
Where the matter of sex cuts no ice.
A wild bee hungrily took a sip
From the honey bunched on her red, ripe lip,
And told her she'd better stay right there
And bloom as the Kansas sunflower fair.
A meadow-lark dodged her swinging rake
And told her that suffrage was all a fake!
A butterfly lit on her sunburned ear,
And whispered, "Your head-wheels are out
of gear!"
A grasshopper peeped from the em'rald sod,
And twittered, "We can never spare you,
Maud!"
A blacksnake said, with a charming hiss,
"Remember the Garden of Eden, sis!"
A chipmunk chirped from a near-by stump,
"Tut, tut, old girlie, don't be a chump!"
A bull-toad bellowed from a neighboring
slough,
"Don't do it, girl, or you'll rue, you'll rue!"
And Maud she said to a passing breeze,
"I can never go back on such friends as
these!"
And swinging the rake with new-born will,
Her soul all thrilled with a rustic thrill!
And there she stays and, contented, sings
With the butterflies, birds, snakes and things.
—The American Angora.

## A LUMBER KING

THERE died not long ago in Michigan a man whose ambition was to make a vast fortune in lumber. He was a little, gray-haired, stoop-shouldered man, whom strangers seldom noticed.

One day last summer he was wandering through a corner of his pine-land empire when he discovered a man chopping trees.

"Is this your timber?" asked the old man, innocently, as he sat down on the noble trunk which the woodman had just felled.

"No," said the chopper, resting to chat with the stranger.

"Whose is it?"

"Oh, it belongs to old Ward. He owns all this timber."

"You're cutting it for him, then?"

"Not exactly. I've got my own winter's wood to get in."

"Ward would be mad if he knew that, wouldn't he?" remarked the little man.

"Would he be mad? Well, I should think he might! He's as stingy about the wood as if he expected to use it all himself!"

"Have you cut much of it?"

"I've got about eight cords stowed away."

"Where have you got it?" continued the old man, in his squeaky voice.

The woodman showed him where it was hidden. The proprietor grinned as he started away slowly, saying. "Much obliged to you for cutting it. I'm old Ward."

The millionaire was as simple in his habits as any woodman. In the morning he rose at four o'clock, and at nine at night his house was always dark and his family in bed.

Men who put on airs were more than he could stand. A promoter from the East, who prided himself on wearing the finest clothes that extravagance could buy, once called at his house in the country. As the visitor drove into the winding roadway he noticed an old man with a hose sprinkling the lawn.

"Here," he cried, "take my horse!"

The old man laid down the hose and took the horse's bridle, while the promoter went up to the front door and handed his card to the maid, saying that he wanted to see the master of the house.

"You just saw him," said the maid.

"Where?"

"He's holding your horse."

The promoter hurried back with a profusion of apologies. The little old man just grinned. He did no business with the promoter.—Youth's Companion.

## KNEW HE WAS CALLED

It is to be feared that some other men's "call" to preach is not more imperative than that of the negro referred to by Mr. Booker Washington in his recent book, "Up from Slavery."

The old negro was working in the cotton-field one hot day in July. Suddenly he stopped, and looking toward the sky, exclaimed, "Oh, Lawd, de cotton am so grassy, de wuk am so hard, an' de sun am so hot, dat I believe dis darky am called to preach!"

## A WARM ESSAY

In a little country school not far from Princeton literary exercises are regularly indulged in every Friday afternoon during the term. A twelve-year-old boy read an original essay on "The Newspaper." This latter-day youthful Solomon treats his subject thus:

"Newspapers are sheets of paper on which stuff to read is printed. The men look over the paper to see if their names is in it, and the women use it to put on shelves and sich. I don't know how newspapers came into the world. I don't think God does. The Bible says nothing about editors, and I never heard of one being in heaven. I guess the editors is the missing link them fellers talk about. The first editor I ever heard of was the feller who wrote up the flood. He has been here ever since.

"Some editors belong to ch ch and some try to raise whiskers. All of them raise hell in their neighborhood, and all of them are liars; at least all I know, and I only know one. Editors never die. At least I never saw a dead one. Sometimes the paper dies and then people feel glad, but some one starts it up again. Editors never went to school, because editors never got licked. Our paper is a mighty poor one, but we take it so ma can use it on our pantry-shelves. Our editor don't amount to much, but paw says he had a poor chance when he was a boy. He goes without underclothes in winter, wears no socks, and has a wife to support him. Paw hasn't paid his subscription in five years, and don't intend to."—Princeton Record.

## THE SACRED PROMISE

"No, madam, I cannot split the wood to which you so indelicately refer. It would be a violation of a sacred promise I made to me aged mother."

"Nonsense! What kind of a promise?"

"We have the poker habit in our family,

ma'am, and I promised mother I'd never touch a chip in any form."—Cleveland Plain Dealer.

## SIX ANTIQUE SAWS ABOUT US

A woman never commands a man, unless he be a fool, but by her obedience.—Turkish Spy.

I will not affirm that women have no character; rather they have a new one every day. —Heine.

A woman is like your shadow; follow her, she flies; fly from her, she follows.—Old Proverb.

On buying horses and taking a wife, shut your eyes tight and commend yourself to God.—Tuscan Proverb.

The one who has read the book called woman knows more than the one who has grown pale in libraries.—Houssaye.

If you would make a pair of good shoes, take from the sole the tongue of a woman; it never wears out.—Alsatian Proverb.

## NOT USED TO IT

Ascum—"Your butler has left you, eh?"

Nooritch—"I had to fire him."

Ascum—"Why, he seemed to me to be an ideal man for the place."

Nooritch—"That's right; but I couldn't break pop of the habit of taking off his hat and saying 'sir' to him."—Philadelphia Press.

## NOT TO BE HURRIED

She—"Papa asked me to-day if it wasn't about time you were declaring your intentions."

He—"Tell papa to rest easy. That isn't necessary. I was born in this land of the free."—Philadelphia North American.

## HOTEL ATTRACTIONS

"Yes, he started a hotel, and he's made a hit, too. You know the old-established place across the street advertised itself as 'a hotel without the discomforts of home.' "—Philadelphia Press.

## THE BORROWING HABIT

Mrs. A.—"Are you troubled much in your neighborhood with borrowing?"

Mrs. B. (innocently)—"Yes, a good deal. My neighbors don't seem to have what I want."—Stray Stories.

## SHOCKED HER

In an elevated train sat a dignified, severe-looking lady. In her lap lay a thick book, whose manila-paper cover bore the stamp of the Y. W. C. A. library. Beside her was a bundle, and beside the bundle a little flat, tin box. The seat facing her was occupied by a very young man and a white-haired old man, rather nervous, but with a kind and interested expression.

As the train slowed up for the Fiftieth-Street station the lady gathered up her bundle, rose, and began to elbow her way through the crowded aisle toward the door. The young man looked at the little tin box left on the seat, but did not budge. The old gentleman no sooner spied it than he grabbed it, stumbled over the young man's feet, and gently touched the lady's shoulder, gracefully lifting his hat as she turned around.

A look at the box and then a look at him. That was all. The train had stopped, and there was no time for words, but that look she gave him was calculated to have the same effect as a right-arm blow. And it did.

He sank back into his seat dumfounded. The young man laughed outright, and the other passengers grinned. Putting on his spectacles, the old man brought the object near his eyes, and the look of amazement on his face gave way to a sickly smile as he read, in large, gilt letters, "All Tobacco Cigarettes."—New York Mail and Express.

## PLANTATION PHILOSOPHY

A lie allus robs dose who believe hit.

"In God we trust" is de only safe trust a statesman kin hab ennyt'ing to do wid.

W'en a statesman once gits started wrong he seems to fo'git de way back.

Virtue is hits own reward, but some Congressmen don't seem to keer much 'bout claimin' de reward.

Life, my breddren, am mos'ly made up o' prayin' fo' rain an' den wishin' hit would cl'ar off.

A starvin' man will not find fault wid de table-cloth.

Liberty is sweet, but hit ain't sweetened wid sugah.

W'en some men kain't act mean dey talk mean.

Yo' kin allus suspect de suspicious man.

Some men ah worse dan unreliable.

Hoppocrisy is de meanes' ob vices.—Arkansaw Thos. Cat.

## JUST LIKE A MAN

Biggs (to cabman)—"What will you charge to take me and my wife to Blank's hotel?"

Cabman—"One dollar, sir."

Biggs—"And how much for taking me alone?"

Cabman—"The same—one dollar."

Biggs (to his wife)—"There, my dear, you see how much you are valued at."—Chicago News.

## JUST THINKS SO

A lady of the Christian Science belief, was recently told that her father was sick, answered, "You must not say he is sick, but he thinks he is sick." A few days later, when the same lady returned from her home she was asked, "How is your father now?" She politely replied, "He thinks he is dead; we buried him yesterday."

## GROUNDS OF HIS FAITH

"Georgie," said the motherly old soul, "aren't you afraid to be so far from home at as late an hour as this?"

"Afraid of what?"

"Of kidnappers."

"Naw!" exclaimed Georgie. "I'm a good little boy, and the Lord will take care of me. 'Sides," he added, contemptuously, "my papa hain't got any money."—Chicago Tribune.

## LOCATING HIM

The transatlantic steamer had just left port. Mama was setting the state-room to rights. "Elsie," she said to her little daughter, "where's your papa?"

"Why," said Elsie, "he's up-stairs on the side porch."—Philadelphia Press.

## MIGHT HAVE BEEN WORSE

Mrs. Abrahams—"Ach, heavens! Leedle Shakey has shust schwallowed der giraffe out of hees Noah's ark!"

Mr. Abrahams—"Vell, tank God it vasn't der pig."—Puck.

## NOT HEADQUARTERS

"What did her father say?"

"He said he couldn't understand why I came to him: all his property was in his wife's name."—Cleveland Plain Dealer.

## CORRECTLY DEFINED

Lots of men are called pessimists who are nothing more than rag-chewers.—Washington Democrat.

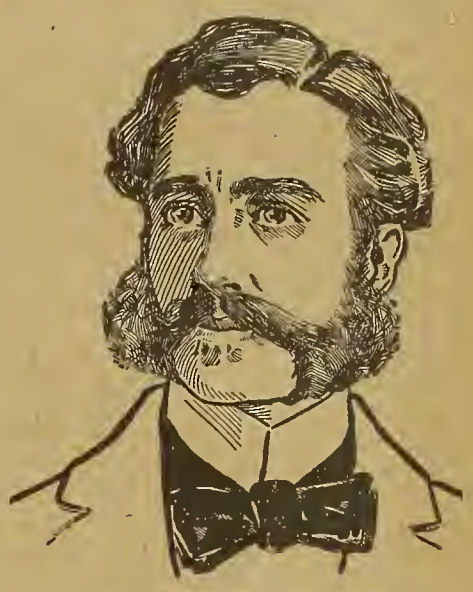

# Sick Made Well Weak Made Strong

**Marvelous Elixir of Life Discovered by Famous Doctor-Scientist that Cures Every Known Ailment.**

**Wonderful Cures are Effected that Seem Like Miracles Performed—The Secret of Long Life of Olden Times Revived.**

**The Remedy Is Free to All Who Send Name and Address.**

After years of patient study and delving into the dusty record of the past, as well as following modern experiments in the realms of medical science, Dr. James W. Kidd, 122 First National Bank Building, Fort Wayne, Ind., makes the startling announcement that he has surely discovered the elixir of life. That he is able with the aid of a mysterious compound, known only to



DR. JAMES WILLIAM KIDD

himself, produced as a result of the years he has spent in searching for this precious life-giving boon, to cure any and every disease that is known to the human body. There is no doubt of the doctor's earnestness in making his claim, and the remarkable cures that he is daily effecting seem to bear him out very strongly. His theory which he advances is one of reason and based on sound experience in a medical practice of many years. It costs nothing to try his remarkable "Elixir of Life," as he calls it, for he sends it free to any one who is a sufferer in sufficient quantities to convince of its ability to cure, so there is absolutely no risk to run. Some of the cures cited are very remarkable, and but for reliable witnesses would hardly be credited. The lame have thrown away crutches and walked about after two or three trials of the remedy. The sick, given up by home doctors, have been restored to their families and friends in perfect health. Rheumatism, neuralgia, stomach, heart, liver, kidney, blood and skin diseases and bladder troubles disappear as by magic. Headaches, backaches, nervousness, fevers, consumption, coughs, colds, asthma, catarrh, bronchitis and all affections of the throat, lungs or any vital organs are easily overcome in a space of time that is simply marvelous.

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# NOW IS THE TIME TO GET EXTRA FINE SILVERWARE AT LOW PRICES

Owing to a recent ruling of the Postmaster-General there will soon have to be a readjustment of many of our offers and many increases in price. We therefore urge our friends who want the best silver-plated ware ever offered at a low price to send in their subscriptions and renewals **at once.** Do not delay, as the present opportunity may not last beyond September 15th.

## Pure Coin-Silver Plating . . .

The base of this ware, except the table-knives, is solid nickel-silver metal, which is the best white metal known for the base of silver-plated ware, because it is so hard and so white that it will never change color and will wear for a lifetime. The base of all this silverware is plated with the full STANDARD amount of pure coin-silver.

The base of the table-knives is fine steel highly polished. They are first plated with nickel-silver, which is as hard as steel, then plated with twelve pennyweights of coin-silver. There are no better silver-plated knives on the market. They are fully warranted.

## Will Stand Any Test . . . . .

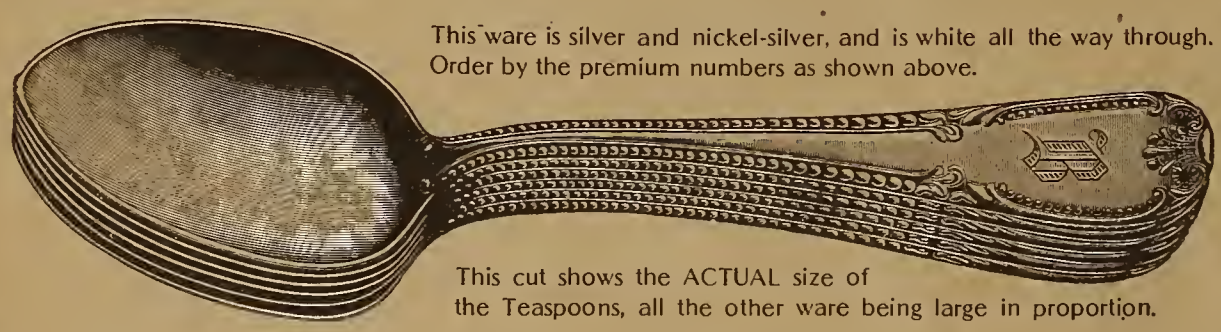
To test this silverware use acids or a file. If not found to be plated with the full STANDARD amount of pure coin-silver and the best solid white metal, and exactly as described in every particular, we will refund your money and make you a present of the subscription. If returned to us we will replace free of charge any piece of this ware damaged in making the test.

## FROM MANUFACTURER TO USER

There is no middleman's profit added to the price of this ware, as we are satisfied to handle it without profit to get subscriptions and clubs, and pass it from the manufacturer to the user at manufacturer's cost plus the expense of postage and wrapping. In this way our subscribers get this ware at less than one half the usual price for a similar grade of goods. It is of first-class quality.

## WEAR PROVES ITS QUALITY

We have handled this ware for years and have sent it into many thousands of homes, where it is now rendering general satisfaction. Hundreds of thousands of pieces of it have been sent out, covered by our guarantee, and complaints are practically unknown. We have thousands of testimonials as to its wearing qualities. A trial order is sure to be followed by others until you get the whole set.



This ware is silver and nickel-silver, and is white all the way through. Order by the premium numbers as shown above.

This cut shows the ACTUAL size of the Teaspoons, all the other ware being large in proportion.

**AN INITIAL LETTER** Each piece of this ware (except the knives) engraved free of charge with an initial letter in Old English. Only one letter will be engraved on each piece. State your choice.

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|---|---|
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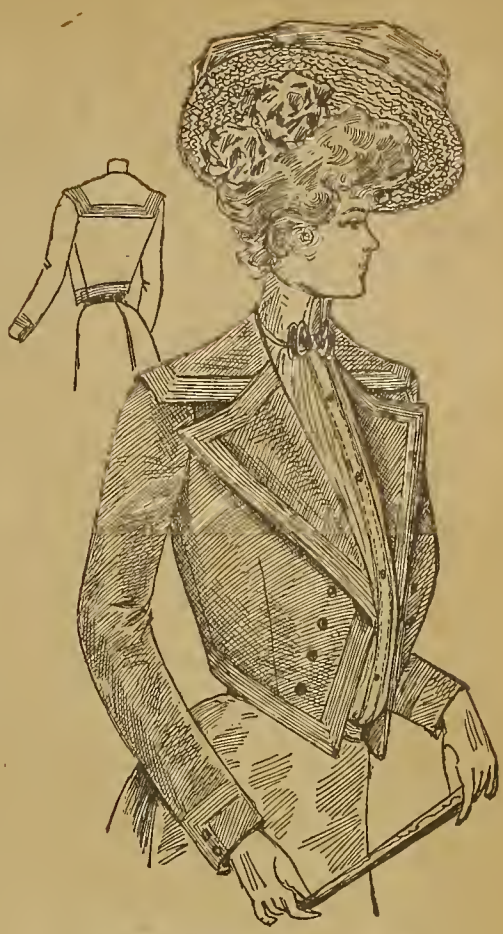

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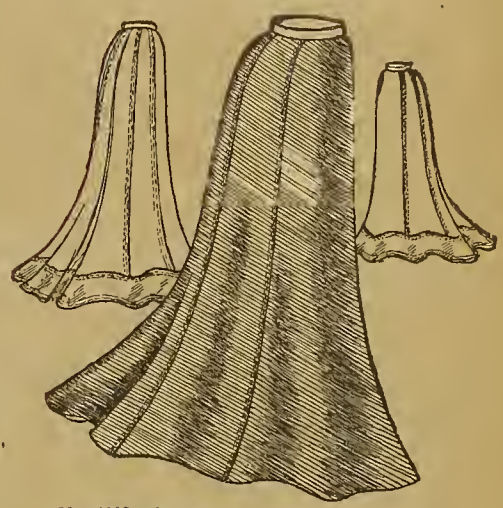

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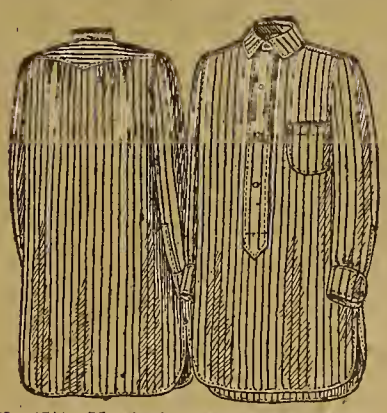

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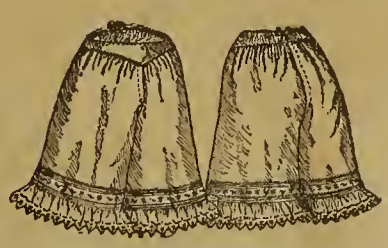

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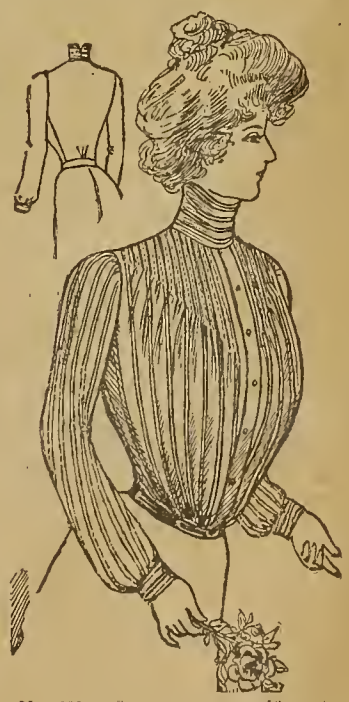

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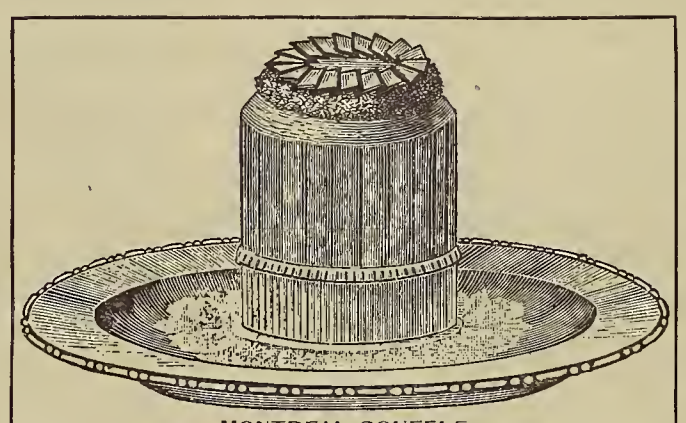
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Vol. XXIV. No. 24 EASTERN EDITION SEPTEMBER 15, 1901 Entered at the Post-office at Springfield, Ohio, as second-class mail matter TERMS { 50 CENTS A YEAR 24 NUMBERS

# New Rice Culture on the Gulf Coast 2 By Fred J. Haskin

THE RAPID growth of rice culture in the coast country seems to be at variance with the general impression that the South is slow. In less than fifteen years what is now known as the prairie rice section has come to be the rice-producing center of the continent. This strip stretches for about four hundred miles along the coast, and embraces about twelve thousand square miles located in fifteen counties in southwestern Louisiana and southern Texas. Within this territory there are twenty-seven rice-mills, with a daily capacity of more than twenty thousand barrels of rice. Before the introduction of rice culture the land which is now being used to such good advantage was considered worthless except for stock range, and sold as low as twenty-five cents an acre. When one particular tract sold for one dollar and fifty cents an acre it was thought to have brought a high price. Since the use of machinery for planting and harvesting rice came into vogue, however, this land has become much more valuable, and will continue to increase as the industry develops.

Land that is best adapted for rice-growing is very level, with just a slight fall for drainage purposes. If his ground is covered with grass the Southern rice-grower either burns it off or turns it under in the early fall so that it will rot during the winter. In the spring the sod is well cut up with disk-harrows, and then rolled and harrowed. Rice is planted the same as wheat—drilled or broadcasted and harrowed in nicely. The best results are obtained from the drill.

The best time for sowing rice is from the middle of March to the middle of April, with allowances for the slight variation of the seasons. It is desirable to sow as early as possible, for the reason that the crop which is sown early stools out better and develops a heavier kernel. The amount of seed required to sow an acre also varies with the season. It takes more for an early sowing, for the reason that the ground is cold and all the seed does not germinate as readily as if the earth was warm. It takes about seventy-five pounds to the acre for a March sowing, and fifty-five pounds if planted in April.

Levees are built around the rice-field high enough to hold the water. Different methods are employed for constructing these levees, but plows, scrapers or grading machinery are generally used to throw the earth into embankments several feet high. When the rice has attained a growth of ten or twelve inches the water is turned on and the surface is kept covered until the crop is grown. The water is maintained at a depth of from three to five inches over the ground, but is never allowed to exceed six inches in depth.

IRRIGATED RICE-FIELD

Rice will grow in a greater depth than that quoted, and it will also grow on wet, marshy ground that is not entirely submerged, but it will not thrive so well in either case as if covered by a few inches of water.

The original method of flooding the growing rice was to accumulate the rainfall into large ponds or basins and then distribute it over the fields by means of ditches; but in dry seasons the water supply would run short, to the injury or total loss of the crop. The more modern method of pumping the water from nearby rivers or bayous through canals has proved more successful and has come to be the generally adopted method along the Gulf coast. Another plan of securing water that is meeting with much favor is the sinking of wells. It has been demonstrated that good, pure water can be obtained in almost every locality in the coast country at a depth of about two hundred feet, and in regions remote from rivers and bayous the water is being pumped from below with gasolene-engines. The surface canals are being used most generally, however, and will doubtless continue to be the popular method of irrigating for some time to come.

When the grain is passing from the milk to the dough state, and the heads begin to droop with the weight of the kernels, the water is drained from the fields in order that the stalks and grain may dry out and the ground become hardened so it will sustain the weight of the reapers which are generally brought into use in about two weeks after the water is turned off.

Rice is harvested in about the same way as wheat and oats. On account of the likelihood of some parts of the fields being low and muddy the self-binders are constructed to overcome this difficulty. Rice is bound, shocked and capped the same as wheat. It is left in the shock from two to four weeks before being threshed. It is almost invariably threshed from the shock, very few farmers going to the trouble of stacking it. It is advisable, however, to not let it remain in the shock any longer than necessary, on account of the liability of damage from wind and rain. A second crop is not a general thing, but there are numerous instances where the land has been flooded immediately after the first crop was removed, and the sprouts came up from the roots of the rice at once and made a fair yield. This second crop brings a good return if cut for hay.

The machines used for threshing rice are somewhat different from those used in separating grain in the North, on account of the straw often being damp and greater in quantity in proportion to the amount of grain. When this wet rice is threshed great care has to be exercised in drying it immediately, or its market value will be impaired. The usual plan is to spread it out on a dry surface, where it is left until it is thoroughly dry, when it is sacked and sent to the mill.

A rice-mill works very similar to a flour-mill, except the kernels are not crushed like those of wheat and corn. The grain as it comes from the threshing-machine is poured into hoppers and carried to the top of the mill by means of elevators. It then starts downward through the machinery. When it reaches the bottom, after passing through the various processes, the outside hull has been cracked and removed, the kernels have been cleaned and polished, all foreign substances removed, and the different sizes and qualities divided into grades by means of separators. It goes from the mill to the merchant and the cook.

There is good reason for the rapidly increasing popularity of rice culture in the southern states. The South needs some small grain that will make suitable food for its population. Rice is the best-

[CONCLUDED ON PAGE 7]

HARVESTING RICE WITH BINDERS

# FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL & KIRKPATRICK CO.

OFFICES:

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## WITH THE VANGUARD

IN SPEAKING of the growth of the telephone and its use in solving some of the most difficult social and industrial problems of agricultural life the "World's Work" for September says:

"The extension of independent telephones has been much accelerated by a recent decision against the parent concern in the matter of the 'Berliner patent,' which, while not basic, is a very important and comprehensive instrument; and though the fight will in all probability be carried to the supreme court, the small companies, especially in the rural districts, are multiplying with astonishing rapidity. A monopoly or large combination is necessary to get the benefits of the long-distance telephone, or of the ordinary local system in very crowded communities, where its efficiency depends upon any business man's ability to call up any other telephone subscriber without having more than one installation; but the isolated country residents and farmers have found their small organization of the utmost service in putting them in communication with one another and with the nearest center of population. They are enabled to shop; to keep in touch with what is going on, particularly as to the vitally important commercial happenings and movement of prices which used to be a closed book, and to ameliorate, especially by evening talks, the loneliness and social isolation which have been one of the greatest drawbacks to farm life.

"Within a radius of thirty miles around Chicago there are eighteen hundred farmers who can be reached by telephone; where they do not adopt the three-to-the-mile arrangement, giving a joint service at a dollar a month apiece, many farmers rig up a home-made line, two or more stringing wires between their houses, along the fences or on bean-poles, at an expense of ten dollars each. In Maryland, and indeed all over the country, there are thousands of rural subscribers to small independent systems which gradually grow and form connections with each other. The result has been many minor improvements and simplifications which have reacted and still further increased the ramifying network of telephone wires, each little center spreading out arms to the other adjacent ones like a great system of nerve ganglia.

"In the cities the telephone is also making its way with a speed which needs only the inevitable cheapening of the service to double or quadruple. We are still far behind some European countries in this matter; in Stockholm, Sweden, for instance, the low rates have increased the use of telephones till there is now one for every fourteen inhabitants."

IN A recent bulletin the Department of Agriculture gives statistics of farm labor and wages summarized as follows:

"A greater number of persons are directly engaged in some form of agriculture than in any other branch of labor. There were 22,735,661 persons ten years of age and over having gainful occupations in the United States in 1890, of whom 8,395,634, or 36.9 per cent, were engaged in agriculture; of these 3,004,061 were agricultural laborers, the class whose wages are the subject of this report.

"Agricultural laborers—that is, those who work for hire—are a decreasing element as compared with the entire farm labor of the United States. In 1870 they constituted 48.9 per cent, or nearly one half, of the agricultural workers; in 1880, 43.6 per cent, and in 1890, 35.8 per cent, or a little more than one third.

"The last year covered by this report is 1899. Farm wages a month, by the year or season, without board and with board, were higher in 1899 than in 1898. In rate of wages with board a month by the year from 1898 to 1899 the smallest changes are in Georgia, Texas and New Mexico, each less than 1 per cent. The highest gain was in Minnesota, 10 per cent, followed by Wisconsin, nearly 10 per cent, Washington and Michigan, each 9 per cent, North Dakota, 8.5 per cent, South Dakota, 7.5 per cent, Wyoming, 7 per cent.

"In the United States as a whole wages by the month, by the year or season, both with and without board, had their maximum in 1866 and their minimum in 1879."

ON HIS return from a trip to Europe recently Senator Depew gave some observations to the press on the attitude of European nations toward America. He said, in part:

"There is a genuine scare on the Continent about the competition of American manufacturers in their markets, and cabinets are consulting if any combination is practicable which will prevent the importation of American goods and check out invasion of the East, which has been opened at such vast expense and effort by European governments. I heard a Russian statesman say, 'Concert of action may be impossible, but Russia, in response to discriminating duties, has shown how each country in its own way can stop this competition.'

"We are coming to be considered a common enemy, to the extent that we actually supplant foreign manufacturers, and this feeling is intensified by every concern which goes bankrupt or reduces wages or lays off a portion of its employees, ascribing it all to American competition. This unfriendliness is not likely to result in war. The relations of European governments are too intricate and uncertain among themselves for any one to take that risk, and combination is impossible. An industrial defensive and offensive alliance against us has insuperable difficulties. But we must expect each country to put in practice every device to keep our products out.

"Germany has both tariff and trusts. Everything there is syndicated. The trusts refuse to sell anything to a merchant who deals in an imported article. This makes it more difficult for the importer, because the boycott means ruin. Where the American opens his own warehouse, as the shoe-dealers did in Vienna, the native shoemakers mob the place, and the police look the other way. Notwithstanding all this the superiority and cheapness of our goods are giving them increased demand everywhere.

"The perpetual menace of ever-increasing overproduction forces the foreign manufacturer to seek markets abroad. On the well-known principle that it pays to keep all his forces employed and all his mills at work to their full capacity if a living profit can be had on the majority of the output by selling the surplus at cost or below he is ever looking for a place to dump the cleaning up of his factories. His great hope is such a reduction or abolition of the American tariff as will enable him to flood our markets. While we can meet him successfully in fair competition, he would, with the tariff off, be virtually fighting our industries and artisans with a home bounty; and whether it ended in the surrender of a portion of our home markets or the reduction of wages to keep it, the result would be equally unfortunate and disastrous.

"I found a general sentiment that we should have our way about a canal across the isthmus, to build, own and control. They were quite ready to accede courteously and cordially to our wishes, only that treaties should be abrogated as they are made by the diplomatic formalities and agreements common among friendly powers. Europe has just grasped the full meaning of the Monroe Doctrine, and unanimously resents it. The Old World wants larger trade with South America, coaling-stations for fleets on this side of the ocean, both in the Atlantic and the Pacific, and a free hand for protection of citizens and commerce in the several states of the isthmus and South America. On this they are all agreed and ready to act, and cannot understand that the Monroe Doctrine is as much a part of the settled policy of the United States as its Constitution."

COMMENTING on the drift of population to cities the "Record-Herald" says:

"According to Census Bulletin No. 65 nearly half the population of the United States in 1900 lived in incorporated towns. These places number 10,602, and contained 35,849,516 inhabitants—that is to say, 47.1 per cent of the total, as against 26,079,828, or 41.4. The figures for the census divisions, which are interesting and instructive, are as follows:

| DIVISION | POPULATION | PER CENT TOTAL POP 1900 | PER CENT TOTAL POP 1890 |
|---|---|---|---|
| North Atlantic | 14,334,878 | 68.1 | 59.5 |
| South Atlantic | 2,970,776 | 28.4 | 25.0 |
| North Central | 13,367,653 | 50.8 | 44.2 |
| South Central | 3,066,696 | 21.8 | 19.0 |
| Western ..... | 2,070,207 | 50.6 | 46.6 |
| Hawaii ..... | 39,306 | 25.5 | 25.5 |
| Total ..... | 35,849,516 | 47.1 | 41.4 |

"It is a noteworthy fact that the drift to cities and incorporated places is greatest in the North Atlantic division and least in South Central division. Excluding the District of Columbia from consideration New York has the largest percentage of its population living in incorporated places, the percentage being 77.6, closely followed by New Jersey with a percentage of 76.2.

"Illinois leads the Western states with a percentage of 66.5 living in towns, Ohio coming second with 58.1 per cent. Almost exactly half the population of Michigan, or 50.1 per cent, lives in incorporated places. Wisconsin has 46.9 per cent, Minnesota 49.1 and Iowa 43.6. St. Louis succeeds in bringing the percentage of Missouri up to 46.2.

"Mississippi has the honor of having the smallest percentage of its population, or 14.7, 'cribbed, coffined and confined' within corporate limits. New Mexico is a close second with 15.2 per cent."

## THE ON-LOOKER

RECENTLY I made a two-hours' run by train from an outlying town to one of our great seaboard cities, and had for a companion a resident of the city whose business gives him opportunity of learning about farm values in that region. "Do you know," said he, "that good farms are for sale all about us at prices as low as similar land commands in the Mississippi Valley? Not these farms right by the stations on the railroad, of course, because city business men and well-to-do farmers want them for homes, but off the line a bit there are bargains in farms. What causes this state of things? Why, I attribute it in large part to the fact that immigration has passed us by on account of the advertising of Western land. The railroads have had paid agents in Europe and in New York City to secure immigrants for the West because they wanted to sell them land, to haul them to it, and especially to have the products of that land for a haul eastward. An immigrant settling here is worth very little to a railway company, adding nothing to its freight business, as the land is already under cultivation. Owning no land here and having no special interests here the parties that induce and supervise immigration manage to push their wards Westward."

Doubtless there is much in this. Other reasons may be assigned correctly. A city no longer waits for the products of near-by farms, but draws from every latitude. The high prices always paid for new fruits and vegetables go to producers hundreds of miles southward and to carrying companies. By the time home products are ready, for market appetite is no longer keen and prices rule low. Indeed, the market for fruits and vegetables is largely at a distance from the point of production. I have seen the Pittsburg market supplied by New Jersey white potatoes that were grown near Philadelphia, whose market, in turn, had been glutted by Virginia before home potatoes were marketable. Berries, peaches and all kinds of perishable stuff are sent chasing after a distant market, and of all concerned the transportation lines reap the surest harvest.

Another factor in the equalization of farm prices is the slaughtering establishments of the West. The market for farm-fat stock is not where consumers are, but where the establishments for slaughtering have been placed, and these are near the centers of production. Last winter a feeder east of the Alleghenies said to me, "I went West for my feeders, and now my fat steers must recross the mountains to find the best market." The seaboard cities use immense quantities of meat, but the greater part of it must first appear on foot in some Western stock-yard, and there be prepared for market. Of what value to a farm is proximity to a big city if the produce of that farm—the fruit, the vegetables, the fatted animals—must go by rail hundreds of miles to a market that is better, at least for the time!

In all this "home" value is not taken into account, and with a majority, possibly, of the buying public the attractions of a farm are in very direct proportion to its income-bearing power. "A good living and some money laid by" is the consideration. But there is a goodly number of farmers who appreciate the advantages of semi-suburban life—of close touch with the things that best promote culture—and these can find by investigation to-day that a farm home within an hour's railway ride of a majority of our cities will not cost more than fertile land further West. It is a matter of taste, of inclination. Let us stay where life is richest and best for ourselves. There is remarkable evenness of opportunity throughout the country, everything fairly considered; and where health and friends are, there is the safe place to try to win success. O—L.

## RURAL AFFAIRS

**Boys, Birds and Schools** In the new "Garden Book," in a chapter on "Our friends and foes, and how to deal with them," appears the following paragraph, taken, I believe, from an earlier issue of FARM AND FIRESIDE: "The little boy with the little gun is still at large. Every little while I see him chasing through fields, woods, meadows and orchards trying his skill with more or less deadly effect on the little birds." A recent occurence in my immediate neighborhood shows that little guns in the hands of little boys are dangerous things, dangerous not only to the birds. A 22-caliber Flobert rifle looks like a mere toy—a plaything—and it is probably more for this reason than for any other that parents are induced to let small boys have them. A bullet fired accidentally from one of these small rifles a few days ago had force enough to penetrate lung and heart of a neighbor's boy, fourteen years of age, killing him instantly, to the great grief of the whole community and the greater agony of the older lad who happened to have the gun in hand when thus discharged. It was a sad and sudden ending to the boys' rifle-practice and fun, but it had its lessons. Public sentiment seemed to have been against the enforcement of the wise state law, which makes it a misdemeanor for persons under eighteen years of age to carry firearms in any street or public place of any incorporated city or village, and likewise a misdemeanor for anybody to discharge firearms in any such street or public place, unless with a written permit secured from a magistrate of such city or village. For some time to come I expect that the Flobert rifle will not be much in evidence on our streets. Public sentiment since the accident here mentioned has come over to the support of my view of this matter. What many people do not seem to know is that our state laws make it a misdemeanor to sell or give toy guns (such in which the propelling force is a wire spring or air) to persons under twelve years of age when such gun is to be used in an incorporated city or village.

The slaughter of the innocents will continue in full force all over the land, I expect, for the natural inclinations of the small boy (and of some bigger ones, too) are to kill birds and destroy nests wherever he finds them. Some efforts are being made in this state (by Cornell University) to have the first principles of agriculture introduced as a subject of voluntary study in our common schools. The problems of plant life and plant production are interesting enough, to some extent, even to school-children, especially to those living in rural districts. But animal life, and especially bird life, is of even greater interest to all children, or can be made so. I believe that it is a fit subject for even compulsory study. From my own recollection of the close attention I and the other boys gave to our regular lessons in zoology in school, of the midnight hours spent voluntarily in writing out essays on the life and habits of the various animals treated in our lessons, I feel sure that a similar course in zoology would add interest and pleasure to the school studies of our children. This belief was strengthened the other day when my wife and I found it a hard job to tear our little ones, hardly four and six years old respectively, away from the big cages of monkeys, parrots and other birds in Bostock's Animal Show at the Pan-American. And the little ones still continue to talk about the animals they saw right along. But what I think of most importance is to get our boys acquainted with our common birds and their life-history and habits. As one of the trustees of our village school district I have purchased a copy of "Child's Birds and Bird Life," or one of similar title, for the school library, and I shall insist that the teachers try, by means of getting the children interested in birds, to instil into them some feelings of love and sympathy with our feathered songsters, and thus turn the natural prosecutors into willing protectors. This, I believe, is a case where the old saying "Familiarity breeds contempt" is untrue. For with birds, "to know them is but to love them."

**Fairs and Side-shows** Right now we are in the midst of the agricultural-fair season. The average agricultural paper tells its readers at this time: "Don't fail to visit the fair. You will see and hear and learn a good many things. You will see what other farmers are doing and producing. You will see the best-improved tools, the best varieties of grains and vegetables and fruits. You may hear of better methods of culture than are now being practised by you." All true. An agricultural fair may be a great school for you. And yet the fair-grounds would remain empty if people expected nothing more from a visit of the fair than to learn something. They want amusement. All the splendid opportunities which the exhibits offer for the education of the visiting farmer would be largely thrown away if the farmers all stay at home. First of all, the people must be induced to come. Then let the really good exhibit do the rest. I have noticed that you can get a hundred people to go to a circus about as easy as you can one to a lecture. A farmers' picnic in a town or county will bring out ten visitors where a farmers' institute draws one. What would the Pan-American be without its Midway? A dead failure. My frequent references in these columns to the big Fair are fairly conclusive proof of the many opportunities which the visitor finds to learn something to his advantage, each in the particular line of business he is engaged in, may this be farming or any other. Most people, however, learn only by accident or by compulsion, seldom by design. Their lessons must be administered to them like really good medicine in the form of sugar-coated pills sandwiched in between amusements. For these reasons I am in favor of having the agricultural fair combined with a number of harmless side-shows. What I am opposed to is the presence of fake shows which give no fair equivalent for the money, gambling-places which simply rob the visitor, or of anything not consistent with good morals or good order. Young people especially want amusement. There are lessons to be learned everywhere, even in side-shows.

In many of the recent issues of FARM AND FIRESIDE the first page was devoted to vivid sketches of farm life in foreign countries. People have often spoken to me in commending terms of these articles, and one of the officers of our experiment station has asked me a number of times whether the publishers were not to issue the series in book-form. I think there was one article about farm life in the Philippines, one of the pictures showing the water-buffalo as used for plowing or heavy hauling. Good illustrations help any one wonderfully to remember what one reads about foreign countries; but the memory needs no such aid after one has seen the real thing. After a visit with wife and children to the Philippine village, where we saw Filipinos at their daily occupations, in their own huts and workshops, the native scenery skilfully imitated, several of the water-buffaloes, with their immense straight horns, hitched to wagons or swimming, diving and sporting in the big pond or lake, we learned something about the life and habits of the Filipinos which we are not likely to ever forget. It was as near like visiting a real Philippine village as we can ever hope to come this side of those islands six thousand miles away. Thus it is with the Eskimo village, where we saw the real people of the Arctic region in their imitation huts of ice, watched their occupations and pastimes, their packs of real Arctic dogs, seals, etc. Thus it is with the African village, with its real savages and pigmies; with the glass-factory, etc. These villages are so much like the real thing that the scenes are impressed indelibly on our mind and memory. Unfortunately the common fairs cannot afford to have side-shows of this high character, yet I grant to many of the more modest affairs a certain amount of usefulness.

T. GREINER.

## SALIENT FARM NOTES

**Drought Doubles Work** When the farm crops are cut down to next to nothing by drought it would appear at first thought that the farmer would have very little left to do on the farm. On the contrary, his labors are nearly doubled. To be sure, there are some who throw up the sponge at once and quit, but the real, live farmer is not that sort of a fellow. The pastures are entirely gone, and though the supply of feed of any kind is very short all stock must be fed the same as in winter. All animals and fowls require more than twice as much water as when green food is abundant, and as the springs are dry and wells low the labor of supplying that water is very great. The matter of fall feed requires attention, for it is sure to rain in time to make something grow to grazing or cutting size, and the seed and tools must be gotten ready for a rush as soon as rain does fall. All these things keep a man quite busy. Moreover, he is obliged to study the feed question as never before. How much wheat, oats or corn, with straw as the principal part of the roughness, will be required to carry his stock over? How many head can he keep on the quantity of feed he has on hand, and how much is he able to buy? These are questions each must determine for himself, and they are sufficient to keep his head buzzing for some time. I know farmers who sell off everything that is at all saleable as soon as indications of short crops appear. They are the fellows who invest heavily in sheep when wool and sheep are high; in hogs when pork is up; in cattle when cattle are booming, and sell clean out when prices have tumbled to the lowest notch. But the steady, intelligent, observing farmer who is successful in the long run will hold the best of his horses, cows, sheep, hogs and fowls, every one that he can possibly carry over to grass time, even if he is obliged to wear undershirts made from old blankets, and trousers like Joseph's coat under cheap overalls, for he well knows that "there's good times a-coming," and they are not far distant.

In the matter of feed one should vary the rations as much as possible. Any animal relishes a change in its diet. Bran, middlings and corn-meal will most likely be the cheapest grain foods most of us can buy, and if they are carefully mixed they will form a more palatable ration than either alone, as well as a more satisfactory one. Wheat, oats and corn ground together make an excellent feed for horses and cows. They should not be ground fine, but crushed or broken, and in this condition make a far better and cheaper feed than the "stock foods" so largely advertised. A small ration of this ground food twice a day is better than a larger ration once a day, and with plenty of straw, or the corn fodder we shall have this winter, will keep an animal in good condition. We should aim to keep all stock in fair condition, and feed to that end. It will be poor policy to allow any animal to fall away in flesh because it requires a little more than another. It will pay in the end to keep it up if it costs every dollar we may have. "Spring-poor" stock is unprofitable stock.

Said a farmer whose crops were almost annihilated by the drought, "I am more concerned just now about how I am going to get myself and family through the coming winter than how I can get my stock through." That is a problem quite a number would like solved. It is a good time to learn economical buying and living as well as economy in other things. Not many years ago I lived about sixteen months principally on mush and milk, and worked all the time. I did it because I had to—because I didn't wish to beg, borrow nor steal. And I cannot see that my general health was adversely affected by my cheap rations. I know men who were living on the fat of the land at the same time who are now having a time to keep out of the poorhouse. They declined to economize when money flowed into their coffers, and now they are pinched, or soon will be.

FRED GRUNDY.


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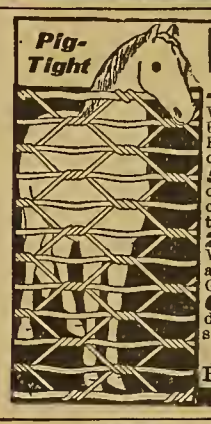


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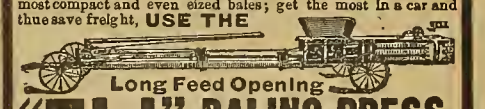

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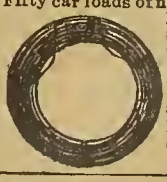

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# OUR FARM

## FARM THEORY AND PRACTICE

SEEDING TO GRASS.—The success of Mr. Geo. M. Clark, of Connecticut, in the production of grass is attracting wide attention. Many disinterested parties have visited his meadows, and their reports confirm all that Mr. Clark claims. For several years the yields have been enormous, exceeding five tons an acre, and on limited areas reaching seven and one half tons an acre. Of course, the soil is peculiarly well adapted to timothy and other meadow-grasses, but the thoroughness of Mr. Clark's methods is responsible for the greater part of his success. He insists upon thorough tillage of the soil, smoothness of the surface, heavy fertilization and heavy seeding without any nurse or protecting crop. To secure the tillage the ground is given about twenty workings before the seeding. It is the manner of tillage, or preparation of the seed-bed, that I find to be the most interesting point in the methods employed. Old sod or stubble land is not turned with a breaking-plow, raw soil not being wanted at the surface. The idea is that the land should be thoroughly aired and remixed, and this condition is secured by repeated use of harrows. The spading-harrow is supposed to do this well, but I presume that nearly as good results can be obtained from the use of the disk and spring-tooth. The weed-seed at the surface is not buried to make a weed growth later on, but is kept near the surface, where it germinates between the workings and is destroyed. The soil is literally torn into pieces and exposed to the air, and is then made extremely smooth, heavily fertilized with commercial fertilizers and heavily and evenly seeded. The crops of hay justify the methods employed.

THE INVERTED SOD.—All of us cannot make five tons of timothy hay an acre, and many of us do not want to try to grow timothy at all, but the experience of this man serves to call our attention to the fact that in ordinary land the soil which has been lying eight inches under the surface, undisturbed and shut off from the air, is not in condition to do its best when first brought to the surface. If it has been lying down there for two or three years its material is inert in a too great degree unless the soil is very rich in organic matter that has acted upon it and admitted air into it. Fertile alluvial soils are always ready for a crop, no matter what side is up, but this is not true of common land. I like the breaking-plow, because it is about the only implement that will bring the under soil up where it can be aired and mixed with ease, and thus assure a fair depth of fertile soil; but for seeds that must be planted near the surface this comparatively raw soil is not the best unless it has been broken, stirred and mixed with some of the organic material that was buried by the plow. So true is this that many farmers do not try to make a reseeding of grass with wheat on an inverted sod, preferring to crop two years, so that the old sod may be left at the surface by the second breaking before grass-seed is sown. Experience has taught that such seeding is safest where thorough preparation of the ground before seeding is not made. If we would have good results from any crop that is seeded shallow, the raw soil thrown to the top by the breaking-plow must be mixed with the soil below by much tillage. Mr. Clark gets his big yields by continued spading and stirring without turning the land over; if we hasten the work by inverting the land, the mixing and fining must still be done thoroughly with harrows. This applies to all land that is at all heavy and tough.

FALL PLOWING.—Knowing these truths about the nature of the soil, we can see why some land is benefited by winter exposure and other land is injured by it. It is idle to discuss fall plowing as if it were a thing that is all right or all wrong for all soils. If the texture of the raw soil six or eight inches below the surface is such that heavy freezing is needed to force the tiny particles apart, and if drenching rains do not cement the soil together again, a necessary work is cheaply done by nature, and fall plowing is followed by good results; but if the soil is easily broken into bits with the harrow it is of such nature that plant-food in it easily becomes soluble, and we may expect that heavy rains will carry off fertility that is needed for the crop to be planted if the land is left exposed all winter, and in this case more harm than good will result from fall plowing. The gain in time in the spring and other minor points are factors to be considered, and I am not discussing the question only so far as soil fertility is concerned.

TILLAGE.—The Cornell experiments with potatoes, the Clark results with timothy, and similar illustrations of the effects of tillage, should emphasize its importance with us. In sandy soils it counts for less, but in clays we should not expect much from a chunk of earth that has lain hidden from sun, air and frost for a year or more. When it is brought to the surface by the plow it must be pulverized. The particles should be mixed with those of soil containing decaying turf or plant-roots. If this has not been done the wheat or grass plant that is trying to start life in that particular spot cannot do well. If practicable, the greater part of the humus in the soil should be close to the surface to do the most good. The breaking-plow makes this impossible, and the next best thing is to do thorough mixing with harrows after the plowing, and then firm well before small seeds are sown.

DAVID.

## HOW WE KILLED THE ELDERS

Mercy! What a bloodthirsty subject! But wait and see if you do not think, after the evidence is all in, that there were some justifiable reasons for our action.

In the first place, the elders I have in mind were not the sedate personages, dressed all in somber black, that we used to see at church, but rather the tough-rooted, pertinacious, everlasting elderberry-bushes that grew in our pastures. How they ever came to be there I do not know. From every indication they had been in those fields for generations before we came into possession of Clover Leaf Farm. And how they had thrived! Some of them, and not so very large at that, were higher than one's head; and such roots—as large as a man's wrist and running out into the earth for many feet!

The old man who had owned the farm before I bought it had been in the habit of mowing the brush every year "in the old of the moon in August." That was his rule, and as the years rolled by, after haying one might see him with his scythe sturdily pounding away at the elders, just for all the world as if he had some great spite against them, as I have no doubt he had, and thought he could mitigate the evil by chopping off their heads.

And I set out in the same way. For a year or two I patiently swung the scythe over the piece. It was hard work. I remember once standing at the lower end of the piece, looking up the hill at the tall growth of bushes and wondering if I ever could stand it to get up through. But after a time the conclusion forced itself upon me that this was a fruitless task, that I might better do something more radical. But what should that something be? I felt as if I ought to have more good of the land where the brush grew. As it was, little grass grew among the elders. The land was almost valueless in its present condition. Taxes were coming around every year, no matter whether I succeeded in getting enough out of the land to pay them or not. What could be done?

I studied on it. The result was that one morning a good heavy team of horses, driven by a man of muscle like iron, drove into the field and sent the plow into the ground at the lower side of the piece. It looked a hard job; but now that I had undertaken the task I was bound to go through with it. It cost me eight dollars to get the field of about two acres plowed. The roots were tough and almost of endless length and number. A good share of the time the team was standing while the man was straining his back pulling the roots. He was very glad and so was I when the last furrow had been turned.

But this was only the beginning of my hard work. The earth was still full of roots which the plow had not drawn out. With a steady horse and stone-boat I attacked the elders in a hand-to-hand conflict. As fast as I succeeded in getting a root loose I put it on the boat. When the boat was loaded I drew it away to a pile which grew and grew and grew until it was as large and as high as a good-sized barn. Every one who knows anything about elderberry roots knows what a back-breaking job this was. Over and over again I would pull with all my strength to loosen the obstinate root; and over and over again the root would give way suddenly, and down I would go, flat on my back, still seizing the offensive root. It is a good thing that no one ventured with a "snap shot" into the field about that time! More than once I would give the matter up as a bad job and hitch the old horse to the giant roots. He could do the work easier than I could and his service encouraged me much.

What a piece of work that was! How I rejoiced when the last vestige of a root had been eradicated and I stood face to face with a clean field! There was a peculiar joy in setting fire to the monstrous heaps of roots when at last they were dry enough to burn. The smoke rolled heavenward, a black cloud hiding the light of the sun for a time.

But what had I gained? Well, the first year I had a fine piece of buckwheat there. This was sowed after I had plowed the field once more thoroughly. This time the work was lighter. Now I could let the horses walk right along. The earth was mellow and in fine condition. The buckwheat, being a good crop to smother weeds, assisted me in putting to death any stray stalks which might have escaped the first plowing.

Then? Well, then I planted corn on the piece; and such corn as it was! I never had had such a piece before, nor do I think I ever have had since. Great stalks, rivaling the western growth and bearing splendid ears at harvest-time. It was a sight to make the heart glad. Even if I never had had any other crop on that field I would have felt repaid for all my work. But the next year I seeded the lot and turned it back into pasture. Ever since it has been the favorite feeding-place of the cattle. The grass which has grown on it seemed to be peculiarly sweet. Very few relics of the old-time elders have ever made their appearance. These I at once settled with.

EDGAR L. VINCENT.

## SHALL WE RAISE OUR OWN HONEY?

A REPLY

It is quite true that I advised my good brother, T. Greiner, not to engage in beekeeping (August 1st FARM AND FIRESIDE page 6). He has seen fit not to take my advice; in fact, I furnished him with a few stands of bees myself, and they have gathered some very fine honey for him. Still my opinion about the matter is unchanged; and as there may be others among the readers of FARM AND FIRESIDE who would like to keep a few stands of bees and raise their own honey, I will here give my reasons why I do not advise everybody to do so.

The tendency of the times is to "specialize." This is not only true in all lines of industrial enterprises, but also in our agricultural pursuit, of which horticulture and apiculture are branches. When we concentrate our energies upon as few things as possible we can better fit ourselves for our occupation, invest in the best machinery, etc., and our success will be more assured than had we divided our attention among a dozen or more things. The bee business is a business of details which must be looked after just at the proper time; if we neglect them success will not be ours. There is already a great deal of lottery associated with beekeeping, and the chances are very much more against the man who makes beekeeping a side issue.

The man who wants to go into bee culture should make it a business, and go into it heavy enough so the business will support him or else let it alone.

My theory, I admit, may be disputed, but it will be hard work to dodge the facts as I have observed them during the past quarter of a century. Time and again have I seen neighbors and friends invest money in bees and hives in the hope of adding to their revenues by the labors of the little industrious insect; the result has been failure almost without exception. The hives stand around empty or are used for hens' nests or for storing apples, etc., the combs are eaten up by moths. The humming of the bees is not heard any more. Indeed, the exceptions are so rare they only prove the rule. I am very loath now to advise any man to to engage in beekeeping without I am satisfied he is willing to give much time and study to the pursuit.

The real difficulty lies in the wintering problem, which is the cause of many a beekeeper giving up the business in disgust, even those who have posted themselves and are up to the times. If there was an easy and sure method of wintering bees, everybody could have them and raise some honey. But as it is it is only a question of time before the ordinary beekeeper is forced to give up.

FRIEDEMANN GREINER.

## WHEAT CULTURE ON THE GREAT PLAINS AND ELSEWHERE

As the selection of varieties for the various wheat-growing localities is now in order, suggestions concerning them will be also. The soft white varieties are best grown in Oregon and Washington. The next best in Michigan, western New York and Canada, and in very small areas elsewhere, but not in quantities sufficient to attract much attention. The semihard red wheats are of a universal character, and are at home wherever the longest-maturing varieties of dent corn are successfully grown. The hard red wheats are best grown in central and southwestern Kansas, Oklahoma and northwestern Texas. The macaroni wheat, about which so much is being published, is an extremely hard, flinty variety, whose culture must necessarily be limited to what are termed semiarid lands. The location of these may be described in a general way as lying between Minnesota and Montana; Iowa and Wyoming; central Kansas and central Colorado; the Indian Territory and central Texas on the east and New Mexico on the west. If any money is to be made in growing macaroni wheat the above limited area is the place to make it.

The macaroni wheats are very hardy, require but little moisture and are rust-proof to a considerable degree, so that their culture can be extended southward to a point where other varieties cannot be successfully grown. In western Texas the seed can be sown late in the fall or the following February. From northwestern Kansas to the Canada line spring seeding succeeds the best. At present the Wild Goose, the Arnautka and the Nicaragua which are all heavily bearded varieties, are recommended for the main crop. The Nicaragua is especially desirable for the southern third of the macaroni-wheat belt, having been well tested in that locality. For further interesting particulars write to Hon. James Wilson, Secretary of Agriculture, Washington, D. C., for a copy of Circular No. 18, of which Mr. M. A. Carleton, cerealist of the Department, is the author. He has prepared in addition to No. 18 a special bulletin on macaroni wheats of which every reader of the FARM AND FIRESIDE in the Great Plains region of the West should have a copy.

W. M. K.

## THE HESSIAN FLY

Considered in all its relations, where one method alone is followed, it is best, in the writer's opinion, to depend upon late sowing. The adult insect flies and lays eggs according to season, earlier or later in summer or fall, but cannot withstand the frost; and wheat appearing after the first white frost of the season will be free from attack.—Bulletin Kansas Experiment Station.

## THE CHARM OF A NAME

It is commonly believed that the rose by any other name would smell as sweet, yet no one who has known the queen of flowers from his childhood could be induced to consent to a change. The name includes and suggests so much of the beauty and sweetness of the flower that we should lose half our love for it were it to exchange names with the jimson-weed. But think of the gain to the jimson-weed!

I have just received a letter from a Boston lady which suggests that there is a hitherto unknown charm in the name of an animal characteristic alike of the mining-camps and summer resorts of Colorado—the delightful, entertaining and useful companion of many a prospector and mountain-climber, the inimitable and lovable burro. Of course, it is well known to Colorado people that all lady travelers among the mountains are captivated by the gentle and winsome burro. He is so patient, so sure of foot, so completely capable of carrying his fair rider wherever the venturesome man may dare to climb, that he cannot but command her respect and admiration. Nothing less were possible—but much more. Ah, the cunning witchery of this shaggy, meditative little bearer of precious burdens! What wonder he is loved by those who have seen and known him!

But my inquiring correspondent—who doubtless has visited Newport and Saratoga—has not climbed Colorado mountains. She probably has been in Switzerland and Italy, but she does not know the glory our own mountains possess—their magnificent distances, their lofty summits, the unwearying burros that make the rough places smooth for the feet of ambitious lady mountaineers. But the Boston lady reads; and who does not know that the reader has the world, as it were, in the hollow of her hand? She has read of the burro, has seen his picture and has been charmed by true tales of his wisdom, his gentleness, his patience, his endurance and his faithfulness, for no one has overpraised him. Is it any wonder she thinks he would be "such a nice little thing" for a pet—if only he could live outside his native hills! The thought was distressing. The editor who published the article would know, and she wrote to him. He did not know, but could most respectfully refer her to "one who knew."

So would I be so kind as to let her know if the burro could endure the climate of Massachusetts? Would it thrive in a beautiful private park near Boston, with perfect shelter, the choicest of food and intelligent care? Of course, she had heard that the burro eats empty tin cans and other equally valuable and digestible materials, but supposed that was only a bit of Western extravagance of statement. She would be glad to have mountain-sage, alfalfa and loco shipped from Colorado for the little fellow if it were necessary—money being no special object to her if only she could be the first to keep a burro in Boston! Of course, the dear creature would be such a comfort—to the children.

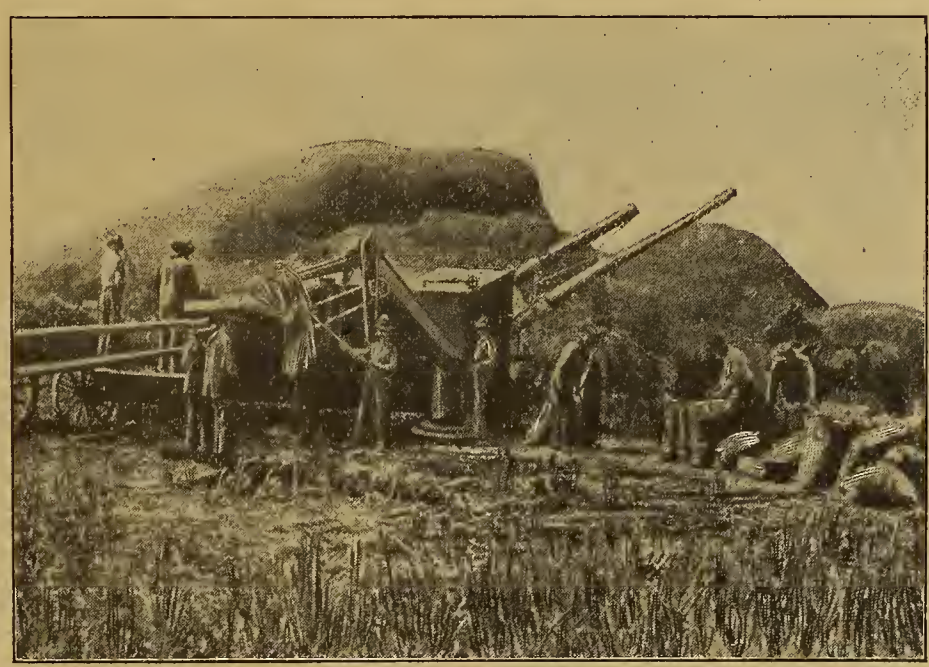
Fortunately for the lady (unfortunately for myself) I do not own a burro-ranch, and the only one of any prominence and respectability in the state belongs to a deadly enemy of mine—a man who is so obstinate and pig-headed in his hatred of me that he would not sell his most deerepit burro to any one who should say that I had referred the prospective purchaser to him. Of course, this is a weakness in the man, a bit of sentiment that might seem inexcusable if it were not so easily explained. But the hardest-headed business men have their foibles. Even Mr. Rockefeller has confessed a weakness—he gets more satisfaction out of the millions he gives to working-men than out of the other and fewer millions he gives to his pet university. True enough, there are ungenerous people who will say that Mr. Rockefeller's satisfaction comes from the fact that the money he gives to workmen is distributed in the form called wages, and that the inventor of "standard oil" rarely pays his men more than they earn. But that is a sort of meanness that might be compared to my own if I were to boast of the fact (which I mention only incidentally and without any wish to magnify my own superior skill) that the burro-breeder already mentioned is insanely jealous of me because he knows I could make more money at the business than he can if I should try—a thing I may yet do if he continues to refuse to sell burros to my Eastern friends. I never expect a large commission—fifty per cent is an equal and fair division.

Now, I am perfectly familiar with Massachusetts, having ridden from one end of the state to the other. I know Boston, having visited the good old town one foggy day in November, so I could write intelligently, and therefore may (modestly enough) venture to make public the advice I gave to the Boston lady, remarking in passing that I made no charge for my opinion or the time spent in writing it. She had inclosed a stamp.

Most of the burros in Colorado (thus I wrote to the Boston lady) are natives of the state, and their ancestors for many generations have lived in this high altitude, feeding on its rich and desiccated herbage, and breathing its thin, anhydrous air. Consequently, if taken to a state near sea-level, the burro would in a measure lose its picturesqueness and its value. Its shaggy coat wet by the frequent rains of the humid East, its trusty feet soiled by the mud of undried streets, its lungs filled with the heavy sea air—the burro could not but change, perhaps degenerate. Doubtless its voice would become less mellow and engaging than when heard among the distant and reverberant mountain crags. Perhaps even its manners would be less attractive in an Eastern city than they appear to travelers in the mountains.

But, my dear madam (thus I concluded my letter), it is probable that I have not mentioned the most serious obstacle to the domestication of the burro in the East—in your altitude, latitude and climate. I can, indeed, send you a burro, and warrant him hardy and gentle and usable; if need were, I could send you alfalfa and loco to feed him; and I can guarantee his pedigree, but his name, which is his most precious quality, is our own inalienable possession, neither transferable nor exportable. I can ship you a burro from Colorado, but when he reaches Boston he will be nothing but an ass.

D. W. WORKING.



THRESHING RICE

## NEW RICE CULTURE ON THE GULF COAST

[CONTINUED FROM PAGE 3]

known eatable for people of a warm climate, and there will always be an export market for the surplus product. Its by-products are valuable for stock feeding. Its straw is superior to prairie-hay, and far more nutritious than corn-stalks. It is more desirable as a crop than cotton, for the reason that the by-product of the latter is too valuable to be left upon the farm. It can be raised as far north as the thirty-sixth parallel of latitude, and its culture is very profitable.

It is claimed that one man with a four-mule team can plant and harvest one hundred acres of rice. Of course, he will have to have an extra man to help with the harvesting and stacking, and a number of extra hands at threshing. If the crop threshes out well his hundred acres ought to yield a thousand barrels, which will bring a return of three dollars a barrel. There is no other country in the world where such results have been obtained. In Japan, China, India, and other countries where the culture has always prospered without the use of machinery, half an acre to an acre is about all one man attempts to cultivate. The grower of these old countries will have to modernize his methods or his American competitor will soon crowd him out of the market.

## EXTRACTS FROM CORRESPONDENCE

FROM SOUTH DAKOTA.—This is a great stock country. Thousands of head of sheep and cattle graze upon the open range the year round without extra feed. Stock of all kinds look well and will go onto the market in splendid condition. The range is in good condition. Good locations can still be taken under the homestead law. Men are very scarce, the wages paid being from $25 to $35 a month, including board. A. W. S.

Seim, S. D.

FROM TEXAS—HIRED HELP.—To Mrs. L. E. S., in FARM AND FIRESIDE of August 15th. Yours is not a very unusual case. There is a remedy, however. Your workmen soon learn that they are the masters and you the worker. My remedy is to manage my own business. I have employed farm and ranch hands during the most of the time for more than fifty years, and rarely have had any trouble. The good treatment is all right, but the no milking, no carrying of water, lying abed until after breakfast and riding the farm-horses at night won't do. When a man is hired tell him exactly what you expect him to do, what time to go to work, when to leave off, and what extra privileges will be given to him, and then firmly exact the full measure agreed to. If not rendered respectfully discharge him without hesitation. Every employer will have one of two reputations. If he will have men to do good work he must be known as one who exacts it. Don't be too good.

Houston Heights, Texas. B. A. R.

FROM FLORIDA.—Florida has a wonderful climate. Many people of the Northern states believe that a summer in Florida would be past endurance, when, in fact, our summers are more pleasant than the same season in the Northern states. We are in the "trade-winds section" between the Gulf of Mexico and the Atlantic Ocean. A sun-stroke was never recorded in this part of the world. We always have a delightful breeze during the day, and cool, refreshing nights. We produce an abundance of hay of the best quality, though it is more trouble to cure hay here than in the North, because of much rain nearly every afternoon. We also produce corn, oats, rice, cassava, peanuts, cow-peas, velvet-beans, sweet and Irish potatoes, etc. For market we grow oranges, lemons, limes, grape-fruit, strawberries, egg-plant, pineapples, tomatoes, cantaloupes, cabbage, peas, beans, etc. Cattle, hogs, sheep, goats, poultry and bees all do well here. For the man with capital who is willing to devote his time to business methods in farming there is an abundant opportunity for investments. For the poor man who is willing to work there is a chance to make a home of his very own. There is an excellent chance for the invalid to recover lost health in this glorious climate of sunshine and flowers. Bartow, the county-seat of Polk, has fourteen miles of paved streets, electric-lights, water works and a splendid school system. No more healthful location can be found than in the hill country east of the city. D. C. G.

Bartow, Fla.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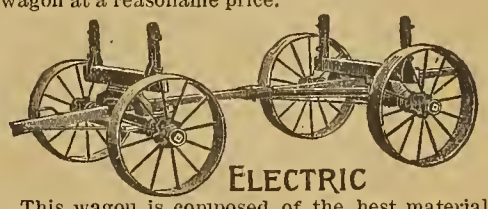


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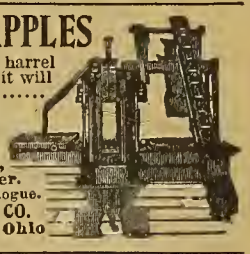

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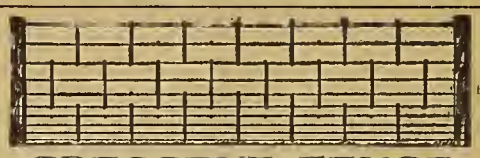

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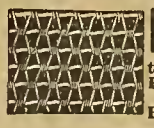

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# Notes From Garden and Field

COW-PEA HAY.—Earlier in the season one of our friends in Oklahoma asked about the curing of cow-pea vines for hay. I have grown this leguminous plant only in an experimental way, and have no personal experience with it as a hay crop. The vines are said to be difficult to cure. But so is mammoth red clover when we grow a mammoth crop. I simply cut it when I feel sure of a dry day, let it dry on one side, then turn it until dry enough on the other (neither side to be dust-dry), and then put it in good big hay-cocks to sweat, afterward packing it tightly into the hay-mow. Prof. W. F. Massey, of the North Carolina Experiment Station, who for years has been the most persistent advocate of the cow-pea as a fodder crop not only for the South, but to some extent also for Northern locations, is the author of a book just published, "Crop Growing and Crop Feeding," in which a good deal is said in favor of the cow-pea as a plant that will do all the farmer could expect clover to do, "and do it in a tithe of the time it takes clover to do it, and which will, at the same time, give him a crop of forage of unequaled value for stock of any kind." This book contains a wealth of information about almost all crops, but I have not been able to find anything in it about the best way of curing cow-pea hay.

THE COW-PEA AT THE NORTH.—"The value of the cow-pea as a hay crop," says Professor Massey, "is being recognized in localities far north of where we formerly thought it possible to successfully grow it. This has been brought about by the introduction of early maturing varieties like the Warren Extra Early, which ripens in sixty days from the sowing, and thus gives the Northern grower an opportunity to get the crop almost as well as the Southern farmer. Especially in the West has its value been recognized." That it is a very easy thing to ripen the earlier cow-pea varieties in New York State I have discovered in the course of my trials many years ago; also that we can get a heavy growth of vines. But I believe sixty days is rather too short a time. I had this year a very small cow-pea sent to me for trial as a variety for table use. It was planted early in June, and the strong, upright-growing, bush-like vines are now covered with pods that will begin to get ripe by September. The plants are still blooming and setting pods. Another variety, which has a more prostrate habit of growth, is only just beginning to bloom at this writing (August 20th). The earlier one undoubtedly is the one we want here, if any. It seems safe to say that the yield of ripe beans will be very large.

SOY-BEANS.—My patch of Japanese soy-beans (quite a respectable one for a trial patch, too, being a large portion of an acre) contains but a single variety, but an entirely satisfactory one. I received the first seed of it under the name of American coffee-berry. It is a rather small bean, of light color, somewhat resembling a small Canada pea. Being planted from early to middle June, the plants are now from three to four feet high and well loaded with pods. They will unquestionably ripen an immense crop of seed. I believe I was one of the very first who ever tried this crop in America, although on a small scale (in about 1871), but it has taken me nearly thirty years to learn how to appreciate it at its full worth. I am now almost in love with the soy-bean. Professor Massey, in the book already mentioned, says: "Like all other legumes, the soy thrives best on a soil well supplied with phosphoric acid, potash and lime; and while it gives a heavier crop on strong soils, it will thrive on land too poor to grow a crop of clover. In fact, the plant thrives on a great variety of soils."

I find the soy-bean almost indifferent to dry weather. I have heretofore planted it for its seed, and used only the dry stalks after threshing, for cattle feed simply to get rid of them and without looking for much value in them. Closer acquaintanceship with the crop, however, has fully convinced me that we have in the soy-bean the most valuable of all fodder crops for Northern locations (more valuable, even, than those early cow-peas), that are intended to furnish green stuff for our cattle and other stock during summer and fall when pastures are dry and short. Oats and peas are good enough in the earlier part of the summer, and if we can get a patch started late, again in the fall after frost; but a patch of soys, easily started in early June on good soil, will give an abundance of the best green feed from the end of July to the end of August, and another patch started late in June, or a late variety planted simultaneously with the earlier one, will continue the green feed to the time of killing frost. In short, the soy will help our cows to that full stomach which is one of the best protections for them against the flies and hold them to the full flow of milk. As to the general cultivation of the crop I quote Professor Massey again as follows: "The upright habit of the plant makes it easier to handle in harvesting. The seed of the soy may be sown broadcast, but the best crops are usually grown where the beans are drilled in rows, like ordinary beans, and well cultivated. The Massachusetts station found that while the soy, like other legumes, needs potash, it does best when it is supplied in the form of a muriate. When sown in drills half a bushel of seed will suffice for one acre of land; when sown broadcast twice as much or more will be needed. When sown for hay the ordinary wheat-drill will put them in about right, and the hay will be more easily cured when the plants are grown thickly. The crop should be cut for hay as soon as the pods are mature, but not dry and hard. Unlike the cow-pea, the hard, round seed of the soy admits of the crop being threshed for the seed with an ordinary machine which would split most of the cow-peas. A crop of two tons or more of hay can be made on land in a fair state of fertility." . . . These references to making hay of the soy may be to some extent applied to the making of cow-pea hay. At present I am more interested in the green-fodder feature of these crops. For summer feed I would sow the soy in drills about fifteen inches apart, using from ten to sixteen quarts of seed of my small variety to the acre, and cultivate a few times with the hand wheel-hoe. Sowing and cultivation, if the land was as thoroughly prepared as it should be, will not require much time and effort, and will pay well. I think in most cases it will also pay well to apply a light dressing, broadcast, each of acid phosphate and muriate of potash. My patch, sown for the seed, was planted in rows eighteen inches apart and at the rate of about a peck of seed to the acre. It is now a perfect mat of green stuff, and if cut now would surely yield two or more tons of hay to the acre.

PINEAPPLE STRAWBERRIES.—The other day I saw some strawberry-plants in pots in the Horticultural Building of the Pan-American labeled "Pineapple Strawberry." A circular found on the table, for free distribution, advertises plants of this foreign variety. This "Pineapple" or ("Ananas") strawberry is an old acquaintance of mine. We had it in our folks' garden in Germany, and I well remember how I, as a boy, would pick for those large berries of high flavor. I tried my luck with them after I came to this country. About thirty years ago I had my friends across the water send me a lot of plants, and I coddled and cared for them the best I knew, but they never amounted to anything. Possibly the soil conditions were not right. If I were to try them again I think I would plant them in clay loam.

TRUE TO NAME?—While appreciating the fact that the path of our nurserymen and seedsmen is not altogether without thorns, I have to find a little fault with them occasionally. With the great care they pretend to take to send out goods that are absolutely true to name, and with the systematic way their business is conducted, we should expect that they give to their customers exactly what is asked for. My gooseberry-bushes were all secured from what I considered the most reliable sources, and for the avowed purpose of testing varieties. One of our readers in Clifton, New York, now calls my attention to an evident mix-up of varieties. The picture of the gooseberry at the left in the illustration in the August 15th issue of FARM AND FIRESIDE, with its scattering minute prickles, is undoubtedly that of the Industry. The name of the berry that I purchased as Keepsake I am unable to determine. It is not Lancashire Lad, as suggested by our friend. In buying odd things, as foreign gooseberries, apricots, mulberries, or anything not belonging to our standard fruits, we run considerable risk of getting different varieties than what they are pretended to be.

DAIRY EQUIPMENTS.—In the Dairy Building, which is an annex to the Manufactures Building, I came across a good many things, too, which will interest the owners of cows. Foremost among these equipments, of course, are the modern cream-separators, and I find here represented the machines made by the De Laval people, P. M. Sharpless, of Pennsylvania, and the Vermont Farm Machine Company. The smallest made by the Pennsylvania concern is named "Buttercup," having a capacity of one hundred and seventy-five pounds of milk an hour. I have often examined the advertisements and circulars of the manufacturers of cream-separators, and wishfully noticed the descriptions of "baby" separators, such as may be used by people who keep only a few cows. It is only the comparatively high price (fifty dollars) which the smallest of these convenient machines are sold for which has been able to keep my desires for the possession of one of them thus far below the buying-point. The manufacturers claim that ten per cent of the cream is saved by the use of separators. This may be some exaggeration, but the Sharpless people insist that the use of the "Buttercup" would surely pay for itself within a few years in the extra amount of butter, even where only two cows are kept. I would like to make the trial. Butter-colors I always pass by without more than a glance at the exhibit. I have no use for butter-color. I do not eat butter for the looks. If it is good and sweet and clean I could eat it with more enjoyment if a little pale than if a lot of foreign substances were added to it just to give it color. If you wish to have high-colored butter, keep Guernseys, or even Jerseys, and in summer feed them largely on new clover, and you will get the color. Another apparently good thing is the fiber butter-package made by a Detroit, Michigan, concern. It is a round box made of water-proof wood fiber and lined with parchment paper, in sizes for one to ten pounds of butter. The manufacturers also make such boxes for jellies. T. GREINER.

## BEAUTIFYING FARM HOMES

A good example is a climbing rose, the Crimson Rambler. It is four years old and is on a trellis eight feet high and eight feet long, and any one can see how well it covers it. When in full bloom it is a great bank of the most beautiful crimson roses. This plant shows what a little care and judicious training will do for a climbing-rose. It was planted in fairly rich soil and has been well mulched with half rotten chips and manure. It has been carefully trained and pruned by its owner, who is a laborer in a lumber-yard, and it truly is a beautiful thing. I asked its owner if he could tell me about how much time he has spent on it the past twelve months, and after studying a few moments he said, "About forty or fifty minutes!" I have noticed that if a man really desires to make his home surroundings look attractive he will find a way for doing it. Many dislike to begin because the task appears too great. This climbing-rose is an object-lesson to such men. With less than one hour's work in twelve months its owner has the most beautiful thing of its kind in his town. And it is leading him still further; he is planning more improvements. FRED GRUNDY.

# Orchard and Small Fruits

CONDUCTED BY SAMUEL B. GREEN

## INQUIRIES ANSWERED

**Locust Sprouts.**—E. W. M., Millville, Mass. The only satisfactory remedy for getting rid of locust sprouts is to keep them cut close to the ground for one season, especially during the months of June and July. If this is persistently followed the roots will exhaust their vitality and they will die out.

**The Hardiness of Plants.**—I was much interested last summer in comparing notes with some English gardeners. Along the line of hardiness, for instance, I was told that in central England the ordinary hydrangea (H. paniculata), which is so very hardy here, was pretty sure to kill to the ground and even to kill out entirely, and that it was not a satisfactory plant on this account. And yet this was in a section where they can grow a wonderful variety of plants which would scarcely be hardy in southern Ohio.

**Grafting Pear on Crab.**—B. H. S., Tiffany, Wis. I have never tried the Gakovsky pear on the Whitney No. 20 apple, but have had considerable experience with grafting others of the Russian varieties of pears on apples. I have found them to take readily and to make fairly good unions, and I am inclined to think that the Gakovsky will do the same, since it is a vigorous grower. I doubt very much, however, if it will be a success when top-worked, since the union will be so much exposed that it will very likely be injured and not become permanent. As a root-graft I think it will succeed well, as the scion will soon send out roots of its own.

**Leaf-miner—Diseased Rose-leaves.**—J. F., San Antonio, Texas. The leaves of your grape-vine are injured by what is known as a leaf-miner, the larvae of which work in the leaf between the upper and lower skins and eat the green portion. If you look carefully you will find them there. The only satisfactory remedy is to gather the infected leaves and destroy them, and in this way destroy the insect.——The trouble with your rose-leaves is not the same as that which injures your grape, and I am somewhat at a loss as to what to ascribe it; but I am inclined to think that it is due to the presence of some fungus, and would suggest that you spray the plants with sulphide of potash at the rate of one half ounce to one gallon of water, first removing and burning all of the diseased foliage.

**Shot-hole Fungus.**—W. A., Winsted, Conn. The plum-leaves inclosed have been injured by what is known as the shot-hole fungus (Spetoria cerasina). This fungus is a very common cause of injury to some varieties of plums. It makes its appearance early in the summer, and first appears as small purplish spots, which later on destroy the tissues, which drop out, leaving holes in the leaf, and so injures the foliage that the fruit cannot mature. This disease is quite easily combated by spraying with Bordeaux mixture, which should be begun as soon as the leaves appear, and be repeated at intervals of two or three weeks until the middle of July. Four applications should be sufficient even in very bad seasons, and two or three will be found sufficient. I do not know why it should be so bad with you, since you have sprayed with the Bordeaux mixture, unless it is that you did not begin your spraying early enough. There is no connection between this disease on the foliage and the fly which you mention, or the rust which affected the blackberries formerly grown upon the land. Some varieties of the plum are especially subject to this disease, while others are seldom affected. This fact probably accounts for the reason why some of your varieties are entirely immune from its injuries.

**Osage Orange—White-ash Seedlings.**—R. E. H., West Torrington, Conn. Small Osage orange plants could be safely set in the autumn in your section, provided the work was carefully done and after planting the plants were mulched with several inches of stable manure or similar material; or, instead of this, if the plants were covered with earth on the approach of winter. As a rule, however, it is best for inexperienced planters to do their planting in the spring.——The seed of white ash grows quite readily if it is wintered in good shape. One of the best ways of wintering is to lay it upon hard ground as upon a garden walk and cover it with a box. In a small way it is well to mix it with sand and bury it in the ground. Nurserymen generally winter it in lofts spread out on the floor, and turn it occasionally during the winter. If wintered as directed it is very sure to grow if sown early in good soil. In the case of a small lot of seed which had been mixed with sand I should prefer to leave it in the sand until it had started a little in the spring, and then sow outside; but it should be turned each day to prevent molding. I am inclined to think your method of wintering your seed was wrong, or else that the seed was poor when it came from the trees, as it occasionally happens that the seed-husks form, but there is no meat in them.

# THE POULTRY YARD

CONDUCTED BY P. H. JACOBS HAMMONTON N. J.

## CHARCOAL FOR POULTRY

PURE charcoal, or the charred wood from the stove, when fresh is an excellent aid in arresting bowel complaints, and is both simple and harmless. Where the hens have not had a variety, parched grain partly burnt affords an agreeable change, and serves nearly the same purpose as charcoal. Oats, corn, wheat or even bran will be readily eaten by hens when they have been regularly fed on a sameness of diet, and such food will greatly aid in arresting diarrhea or other bowel disorders. In experiments made to determine the benefits of charcoal in feeding, if any, four turkeys were confined in a pen and fed on meal, boiled potatoes and oats, and four others of the same brood were at the same time confined in another pen and fed daily on the same articles, but with one pint of finely pulverized charcoal mixed with their food. These had also a plentiful supply of broken charcoal in their pen. The eight were killed, and there was a difference of one and one half pounds each in favor of those supplied with charcoal. They were the fattest, and the meat was superior in point of tenderness and flavor.

## CROP-BOUND

What is known as hard-crop, hard-craw, or crop-bound, is the packing of the crop until it is distended to an unusual size, the cause being due to the closing of the passage leading from the crop to the gizzard. The closing of this passage happens when the hen swallows long dried grass, a piece of rope, rag, or some other substance. But hard-crop may come from indigestion. When the hens have been overfed, and especially on grain, their digestive organs become deranged, the food does not pass from the crop to the gizzard, and the contents of the crop may ferment and become sour. First, try carbonate of soda, giving one fourth of a teaspoonful every hour until four doses have been taken, and work the crop with the hand. Dissolve the soda in water sufficient for the purpose, and pour it down the throat by using a teaspoon, but be careful not to strangle the bird. If this fails it may be necessary to open the crop by making an incision which, however, should not be done by an inexperienced person. The object should be not to overfeed and thus cause indigestion.

## DISEASES AND FILTH

Diseases have their origin in filth, dirt and unsanitary surroundings or in the food. In nearly all instances they can be traced back to one of these causes. If the cause is not removed it is impossible to more than temporarily cure the birds of their ailments. There is no time when these matters should be more earnestly considered than in the summer. It is claimed that neither disease, mites nor other troubles attack healthy chickens, but this is only partly true. When the hen-house is infested with mites or germs of disease, the poultry kept in the place will be diseased more or less. But the healthy ones will resist the attacks the longest, and with favorable surroundings they will soon throw off the disease. At this time of the year the birds are more subject to attack, and the warm weather favors the growth and multiplication of germs and insects. There is only one way to prevent this. The housing quarters need a thorough overhauling and general cleansing. Every nook and corner in the place where an insect could possibly hide should be fumigated and cleansed.

## CHICKS FROM PULLETS

Hens are considered by some as better than pullets for producing chicks, provided they are not made too fat, for the following reasons: First, a hen is fully matured and has completed her growth, while the pullet is an immature bird—a large chick—and is not capable of imparting the hardiness, vigor and stamina that comes from the parent that is fully and completely matured in every respect. In experiments made with hens and pullets it was found that while the eggs of the pullets hatched fully as well as those from hens, yet a large proportion of the chicks from the pullets' eggs died. Another point is, be careful of buying. When one buys his hens or pullets he may have to procure them from different sources, and in so doing he also buys disease and lice. Raise your pullets if possible, and then you will have them of same kind of breeding. Never bring a strange fowl on the place and you will be safer from disease, lice and other difficulties.

## OLD HENS

Old hens are sometimes the best in the flock, and hens two years old should be preferred if eggs are desired for hatching purposes. An impression has grown that a hen becomes less valuable after her second year and that she must be substituted by a pullet. This is a mistake. A hen is in her prime at three and four years old. There is no necessity for sacrificing good hens so long as they lay, and they may be profitably kept until they are six or seven years old. The supposition that a hen lays only six hundred eggs in her life and then ceases is incorrect, as many hens have been known to far exceed such limit. After a hen is eighteen months old her eggs usually hatch well, her eggs being much better than pullets' for that purpose.

## WHEN TO BUY FOWLS

The fall of the year is the time to buy fowls of the pure breeds, and prices are then lower and the majority of breeders do not care to winter more stock than they can accommodate comfortably, being consequently disposed to sell at lower prices than in the spring. Better stock can also be obtained in the fall, as breeders have more on hand from which to select, and can more easily satisfy customers.

## INQUIRIES ANSWERED

**Sore Head.**—W. J., Walterboro, S. C., writes: "Please give a remedy for sore head on fowls."

REPLY:—Bathe the head with a solution of permanganate of potash, which will show a purple color. When dry anoint with a mixture of cedar and olive oils.

**Feeding Geese in Summer.**—E. N. G., Oxford, Pa., writes: "Which kind of grain should I give young, half-growu geese at this season?"

REPLY:—They will require no food except that which they can secure on a pasture lot. Clover, all kinds of grass and many young weeds are relished by them, but they prefer the tender roots of young plants.

**Limber Neck.**—F. B. M., Delaware, Ky., writes: "My fowls are dying with what is termed limber neck. They fall off the roost, lie on the floor a day or two, and die."

REPLY:—Details of management should have been given. The disease seems to exist only in Kentucky, Tennessee and northern Alabama. Investigation shows that the difficulty is frequently due to eating certain maggots. Molasses in water has proved beneficial as a remedy. It affects very fat fowls more than others.

**Staggers in Turkeys.**—D. L. J., Kelseyville, Cal., writes: "What is the cause of young turkeys a month old and over staggering or becoming dizzy and falling down, the eyes being glazed? They get over it, but some die when they have it a long time. The weather here has been very warm, in the middle of the day from eighty-five to one hundred and six degrees."

REPLY:—You should have stated the mode of management. The cause is probably the large gray lice on the heads and necks, though it is also possible that high feeding and extremely warm weather may have affected them. If lice are found, anoint with melted lard, and paint the roosts with a lice-killer.


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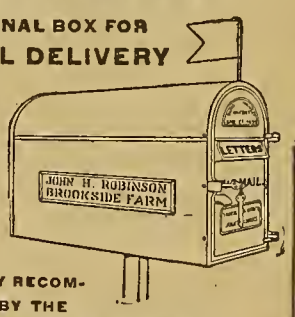


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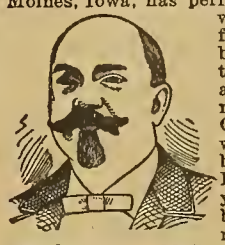

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Questions from regular subscribers of FARM AND FIRESIDE relating to matters of general interest will be answered in these columns free of charge. Queries desiring immediate replies, or asking information upon matters of personal interest only, should inclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query, in order that we may answer by mail if necessary. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

**Worms in Dried Fruit and Weevil in Peas.**—Before storing away for winter place the dried fruit or peas in a tight box or barrel. Into a saucer set on top of the fruit or peas pour a couple of ounces of bisulphid of carbon, and cover closely. In a few hours the fumes of this volatile liquid will kill all the insects or larvae. Keep flame away from the vapors.

**Well-water for Irrigation.**—E. O., Hastings, Minn., writes: "I am about to put up a windmill on my well, with elevated tank for sprinkling the lawn and watering the garden. Some of the old gardeners tell me that well-water is injurious to vegetables on account of its hardness."

REPLY:—The result will depend on the character of the water in the well. Water from some wells is harmless; from others, impregnated with alkali, very injurious. Ask your experiment station at St. Anthony Park, Minn., for any reports it may have on the use of well-water in Minnesota for irrigating purposes.

**Preserving Cucumbers.**—W. J., Milford, Iowa. The cucumbers are picked every other day in the morning as soon as the dew is off, and sorted into three sizes from two to seven inches in length, each size packed by itself. If possible the packing is done in the afternoon of the day they are picked. Barrels may be used; when they are full the cucumbers are covered with brine of sufficient strength to float a potato. No more salt is to be added. After standing three or four days to settle, the scum should be removed and each barrel refilled from other barrels containing cucumbers of the same size which had been in brine of like strength. The barrels when headed up and marked are ready for shipment. A forty-gallon barrel will hold from five to six thousand of the smallest size, and from ten to fifteen hundred of the largest. The cucumbers must be cut from the vines with a sharp knife or, better, scissors, leaving on each a bit of stem. Cucumbers put up in this brine will not shrivel and need but little refreshing; but housewives must bear in mind that they will not keep through the second summer without adding more salt.

## VETERINARY

CONDUCTED BY DR. H. J. DETMERS

To regular subscribers of the FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least TWO WEEKS before the date of the issue in which the answer is expected. Veterinary queries should be sent directly to DR. H. J. DETMERS, 1315 Neil Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered.

**Wants to Remove a Brand on a Mare.**—C. A. N., Strasburg, Ill. A brand by which the roots of the hair have been destroyed and in which the burnt skin tissue has been replaced by scar tissue cannot be removed, and is permanent.

**Coughs.**—J. S., Arlington Heights, Ill. You say your horse has had a cough for the last four or five months, but you give no other symptom and do not even qualify the cough. Coughing will be produced by almost any irritation of the larynx, and therefore is a concomitant of a vast majority of all respiratory disorders, and not at all a characteristic symptom upon which by itself alone a diagnosis can be based.

**Mare Twenty Years Old.**—M. R. G., Lundys Lane, Pa. A mare twenty years old, especially if she never has been with foal, is too old to be bred.——As to your cow, please describe the swelling beneath the jaw, and say, at any rate, whether it is soft, edematous, or doughy, or hard, and whether it is in the skin, movable beneath the skin or attached to the bone, also whether the skin covering the swelling is broken or not, and I may be able to give you a satisfactory answer.

**Wants to Breed Mares Out of Season.**—J. O. H., Chandler, Fla. You may breed your mares at any time of the year while in heat. Mares, however, do not come in heat, or show symptoms of being in season, at such regular periods as some other animals—cows, for instance—therefore, if it is desirable to breed them at an unusual time, the only thing that can be done is to try them quite often, say once every week, until symptoms of heat can be observed, and then to breed.

**A Paralytic Affection.**—M. C. H., Cahool, Mo. What you describe is caused by a paralysis of either the seventh, or facial, nerve or of the trigeminus, or fifth, nerve. Your description is not definite enough to enable me to decide which nerve is diseased. If it is the seventh, or facial, nerve and the paralysis is only one-sided, so that the animal can take up and eat a sufficient quantity of food, the prospect of recovery will be a fair one; but if the paralysis is on both sides, or if it is the trigeminus, or fifth, nerve that is diseased, the prognosis is not good and the prospect of recovery a poor one. As to treatment, the best results are probably obtained if such a horse is sent to pasture, as that will compel her to exercise the paralyzed muscles as much as possible. That the pasture must have sufficient grass to support such an animal that can eat only with difficulty need not be mentioned.

**Probably Traumatic Carditis.**—D. S. C., Menowataka, Mich. Although your description is rather incomplete I do not doubt that your cow died of traumatic carditis, or, in other words, that she swallowed either on the thirteenth of July or a day before with her feed, or possibly with some dish-water or slop, a sharp and more or less pointed body—for instance, a knife, a fork, a nail, or something similar; that this foreign body worked its way through the wall of the second stomach on the thirteenth of July, and thus caused the first attack of sickness, that the same body gradually worked its way further forward and downward until it reached the point of the heart, where, wounding the same, it caused the fatal inflammation of the heart and of the pericardium, the traumatic carditis and pericarditis. If you had made your post-mortem examination a little more carefully you undoubtedly would have found the foreign body that killed your cow.

**Impaction of the Third Stomach.**—W. S. H., Franklin, Tenn. Although some of the symptoms as described by you would indicate the presence of rabies, the history of the case and the result of the post-mortem examination as given by you make it probable that your cow died of impaction of the third stomach, or manifold. Cases of this kind, unless relieved in time by giving some good croton-oil (from twenty-five to thirty drops, according to the size of the cow) in about five ounces of either linseed or olive oil, result as a rule in a fatal termination. This medicine is the more effective the slower it is poured down, because if given in large swallows it will all pass into the paunch, and will therefore act slowly and have but little effect. Still it cannot be denied that the behavior of the cow as you describe it—"at times becoming perfectly wild and running and horning the hogs and other stock"—and also the statement that she constantly lowed will leave some suspicion of rabies unless it is positively known that no cases of rabies have occurred within the last six months in your part of the state.

**So-called Paper-skin.**—H. B., Laporte, Ind. The disease, known in the North as "paper-skin" and in the South as "Lombriz," is caused by the presence of worms, known as Strongylus contortus, in the fourth stomach of lambs and sheep. It can be prevented if the lambs and sheep are not allowed to graze in any place which the year before, or, more particularly, from July to November, has been occupied by sheep or lambs suffering from that disease. The worms, if not too numerous, and if the host (lamb or sheep) is not yet too far gone to make a recovery impossible, can be expelled by means of a two-per-cent solution of tartar emetic in distilled water, to be slowly given as a drench to the sick sheep or lamb on an empty stomach or in the morning before the animal has received anything to eat. The doses of this solution for a lamb is, according to the age and size, from six drams to one ounce, and for full-grown sheep from one to one and one half ounces. As a rule one dose will be sufficient, especially if the medicine has been given on an empty stomach and if all kinds of food are withheld for about six hours after the same has been taken. Arrange to have uncontaminated pastures for the lambs.

**A Case of Heaves.**—H. K., Kanopolis, Kan. What you describe is a case of so-called heaves, perhaps not one of that kind caused by eating too much dusty timothy or clover hay, but at any rate one to which the definition "A chronic, feverless and incurable difficulty of breathing" must be applied. It is, most likely, one of that kind of so-called heaves in which the chronic, feverless and incurable difficulty of breathing is caused not by a loss of contractility in the air-cells or air-vesicles of the lungs, but by a degeneration of a considerable part of the lung tissue itself—hepatization, for instance, which made the diseased tissue solid and impermeable to air. In combination with this probably more or less adhesion between the lung pleura and costal pleura is existing, and, of course, aggravates the difficulty of breathing. In a case like this, although incurable, the possibility of some improvement is not excluded if the case is not of too long standing; but as your horse has been that way already for three years a perceptible improvement can hardly be expected any more in your case. Certainly nothing can be done by way of medication.


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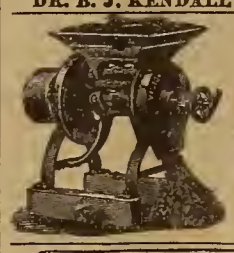

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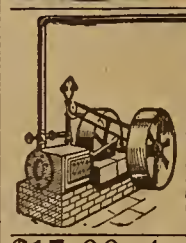

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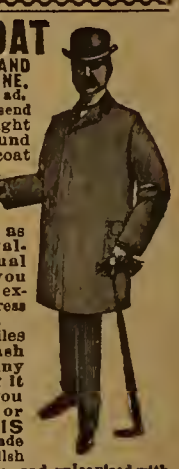

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# THE GRANGE

Conducted by Mrs. Mary E. Lee, New Plymouth, Ohio

## CURRENT COMMENT

**Fresh-air Work** The season just passed has witnessed a large increase in the number of waifs brought from city to country for a little outing. Many who have had these unfortunates in their homes for a few days are enthusiastic in their praises. The rapturous delight which the children take in the freedom of country life is its own eloquent testimonial of their gratitude. The Woman's Work Committee is to be congratulated on its success in this line of work. No doubt next year will witness an extension of this work.

**Woman's Work Committee** Several states have what is called a "Woman's Work Committee." The aim of this committee finds expression in various ways. In fresh-air work, in establishing rest and reading rooms for country women in towns, in distributing literature, in bringing people of kindred tastes together, and in the thousand and one ways that a tactful band of women can devise for making better and happier the lives of those about them, has been its chief work. Judging by results it is one of the most helpful and effective grange agencies.

Such a committee can do much in spreading grange enthusiasm. At every grange gathering of whatever nature there are those who attend all the meetings and are familiar with the proceedings; each gladly greets each, and lives over again the days that are past, and plans for those that are to come. They are a happy little circle that believes all others are likewise happy. There are those, also, to whom all these scenes are new. Perhaps they come with an exaggerated idea of the fraternal features of the order. Perchance their faith is wavering, and they come with a sincere desire to see the best there is, and to go home renewed in faith and zeal. Certain it is that too often they are like "strangers within the gates." With innate delicacy they shun even the very appearance of intruding. What a blessing to these shy, timid ones a committee of energetic, tactful, sympathetic women would be! What congenial spirits could be brought together! What hours of heartache, of despondency, could be converted into happy, blissful ones by the consummate tact of a gracious and generous woman! And these women would go back to their homes and tell their neighbors of the delightful times they had, and of the advantages a member of the order had over one who was not. Each woman so helped would become a center of enthusiasm in her own vicinage. And when she returned a year later she would be ready to contribute her share to the general happiness of the occasion. One discontented, disappointed woman can undo the work of dozens of workers. By all means let every state have its committee of women who will look after the social features of the order, and who will devise ways and means of bringing strangers together and making them feel at ease. The Woman's Work Committee has not received a tithe of the consideration its excellence demands. Where it is established it has proven one of the most efficient agencies for grange extension. That it would be of value in every state all who have been observant of its work will admit.

**Educational Platform** We present in another column the Declaration of Principles of the National Educational Association. These columns have consistently stood for the principles therein enunciated; namely, the importance of a well-selected public library; non-partizan control of schools; necessity of a thorough school course; unity and uniformity of the school course; legislation that leads, not follows, public sentiment; that it is as much a crime to allow a normal child to grow up in ignorance as in vice and lawlessness; the necessity of expert and constant supervision; the consolidation of rural schools; the establishment and maintainance of township and county high schools; the supreme importance of educated, trained, cultured teachers.

Read the Declaration of Principles. See how closely they ally themselves with the principles of our order. Discuss the suggestions made. Create an enthusiasm for better schools. Better schools we must have if we expect our rural communities to keep abreast with the times. Our boys and girls must be better equipped for the duties of life if they are to maintain their prestige with those enjoying greater educational advantages. Because a boy and girl is born on a farm is no reason that he and she shall be handicapped in the struggle of life. Add to the natural advantages a country life has over that of the city, good schools, and what a race of honest, industrious, cultured men and women we would have!

## DECLARATION OF PRINCIPLES

The National Educational Association, now holding its fortieth annual meeting in the city of Detroit, and representing the teachers and friends of education throughout the country, makes the following statement of principles:

1. The problem of elementary education is the most important problem with which the state must deal. The progress and happiness of a people are in direct ratio to the universality of education. A free people must be developed by free schools. History records that the stability of a nation depends upon the virtue and intelligence of the individuals composing the nation. To provide for the universal education of youth is the duty of every state in the Union. All the residents of the territory under the direct control of the general government, including the Indian Territory, Alaska and our new possessions, must receive the benefits of free education at the hands of the government. We note with satisfaction the steps that have been taken by the present administration to place the blessings of American free schools within reach of all the children of all the peoples under our flag.

2. The Bureau of Education, under the direction of William T. Harris, Commissioner of Education, has rendered invaluable service to the cause of education throughout the United States. It is the judgment of the association that the powers of this bureau should be greatly enlarged, and that the general direction of public education in all the territory of the United States not under state control, including our new possessions, should be part of the duties of the bureau. In no other way can the general government so quickly, economically, intelligently and safely carry the benefits of popular education to the peoples for whose education it is responsible.

### RURAL PUBLIC SCHOOLS

3. We reiterate the statement that the public school should be the center of the educational life of the community in which it is located. Especially should this be true in rural districts. Here should be found the public library for the use of all; here the educational extension courses should draw the old and the young; here may literary and social meetings be held which will tend to uplift the mental, social and spiritual life of the people. Freed from the ravenous influence of partizan politics, untouched by the narrowness of rigid sectarianism, the public school should become the real center of the broader intellectual life, the educator of men and women beyond the school age, as well as the guide of childhood and youth.

4. The subjects that may properly be taught in elementary schools include those that bear upon the ethical, physical and esthetic nature of the child as well as its purely intellectual nature. Sober, industrious, intelligent, honest, cultured citizenship should be the result of public-school training in the United States.

5. Our system of education will not be wholly free until every grade of school, from the kindergarten to and including the university, shall be open to every boy and girl of our country.

### LIBERALITY OF MEN OF WEALTH

6. The liberality of men of wealth in making large donations to institutions of learning is to be strongly commended and encouraged. At the same time it should be borne in mind that popular education rests upon the people, and should look to them for its chief support and control. The relation between state and local support should be so adjusted that communities will maintain a deep and abiding interest in their schools.

7. The public-school system of a state should be a unit from the kindergarten to and including the university, and all private institutions should endeavor to work in harmony with the ideals of public education so far as their special purpose will permit them. In order that public and private institutions of learning may more fully co-operate in the general work of education the relation between these institutions should be more clearly defined than it is at the present time.

8. Legislation with respect to public education must not wait for public sentiment. It should lead public sentiment when necessary. Experience teaches that what people are compelled by law to do with respect to schools they readily learn to do without compulsion, but that they usually are slow to demand reforms which involve increased taxation. School legislation should therefore be under the general direction of educational experts.

9. The National Educational Association recognizes the principle that the child has the same right to be protected by law from ignorance as from abuse, neglect and hunger; and it therefore records with approval that many of the leading states of the Union have compulsory education laws upon their statute books.

### SCHOOL SUPERVISION

10. While many cities have at least partly solved the problem of school supervision, in most rural communities the problem is almost wholly unsolved. Close, constant, expert supervision of schools in both city and country is imperatively demanded not only on account of the large financial interests involved, but also on account of the supreme importance of the teacher's work and the lack of well-rounded preparation on the part of teachers.

11. The National Educational Association watches with deep interest the solution of the problem of consolidating rural schools and transporting pupils at public expense, now attempted in many of our leading states. We believe that this movement will lead to the establishment of township and county high schools, and thus bring more advanced education to rural communities. We also believe that supplementary state support of rural high schools is in the highest interest of the entire state.

12. The state should support and control institutions whose object is the preparation of teachers for the public schools. Normal schools, free to persons preparing to teach, are an absolute necessity in a perfect system of education.

### ONLY TRAINED TEACHERS

13. No one should be placed in charge of a school who has not been previously trained for the work of teaching. The plan of issuing teachers' certificates of low grade year after year is at best a makeshift, and should be discontinued whenever the state is sufficiently advanced in education to warrant its discontinuance. There should be a limit to the length of time a person can serve as an apprentice in the vocation of teaching.

14. We believe that the standards for school architecture, including the proper seating, heating, lighting, ventilation and ornamentation of school buildings, should be as definite as the standards for teaching. The law should fix the dimensions and all other requirements of school buildings, as well as the size and character of school-grounds.

15. The National Educational Association declares in the preamble to its constitution that its objects are "to elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States," and we again promise that the best efforts of this association and its members shall be given to the furtherance of these objects, in the firm conviction that in no place can we serve our country better than in her schools.


A FEW FACTS

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# In the New City of Color and Light

BY MARY JOSLYN SMITH

When a school friend long ago bade me good-by to go to Boston to study elocution she said, "I have always envied any one born in Boston, but next to that I have coveted going there to study, and now I am very happy to go."

So the residents of Buffalo are to be envied this year while the Exposition lasts; and next to those of us who live in Buffalo and can leisurely study the wonderful lessons and digest the mental food and study again, next to us are they to be envied who can come as visitors. There is so much even in the comparatively small space that the whole six months would not be too long; yet here, as everywhere, much depends on what one brings with them of mental equipment and taste and eagerness to improve as to what he or she takes away.

Only yesterday a flippant young lady stood beside me in a large dry-goods store and said to the girl clerk, "I came to see the Fair, but I have no use for it."

The clerk replied, "I love the fair; how many times have you been to it?"

"Just once," the visitor answered.

"Did you stay in the evening to see the illumination?"

"No; I would rather be down town at the theater," was the reply.

I could only think of the homely old saying about casting pearls before swine.

It seems impossible to be untouched and unmoved by the glories of an evening at the Exposition. However weak one's own thoughts may be, or however unimaginative one may be, there seems involuntarily to come a worshipful spirit, some realization of the powers in nature and of the works of man. All about the grounds you hear strong, wise men repeating, as the light is turned on, "For Thou hast made him a little lower than the angels, and hast crowned him with glory and honor." And perhaps another is saying, "Thou hast put all things under his feet." And yonder, by the cool fountains, voices are singing, "Oh, you must be a lover of the Lord."

But the evening is not all of the Exposition. A trio of Western primary teachers were here lately. They went carefully through the Government Building and the Art Gallery during the few days they had; they wanted things they could use, as they said. One of them said, "We would not think of looking into the Midway; Midways are vulgar."

I said, "While Hiawatha stories are taught, and while the North American Indian life and stories are in evidence in all teaching, would it not be a good idea for you to see the Indian Congress, with its five hundred Indians? There are fac-similes of their native huts, and they live as at home." The shop-windows for a year or more past have been trimmed with all manner of pictures of Indian warriors, the shop-keepers often saying, "You know Indians are the fashion."

They did not go in the Midway, and doubtless it was best they did not, for they had brought with them such a strong prejudice that they could hardly have gained anything by the visit.

Another company of primary Sunday-school teachers were here to the great Pan-American Bible Congress, held for two weeks. Here they met Madam Mountford, who is well known in most cities as a Bible-lecturer. She was born and brought up in Jerusalem, and lived there until twenty-two years of age, since then going back many times. These teachers went with her straight to the Midway as being the most helpful place possible. Madam Mountford spoke Arabic fluently, and the Egyptians and people from about the Holy Land welcomed her, and she interpreted for the teachers, and altogether they gained more in the two or three hours there that would be helpful to them in their work than in any other part of their visit.

One day I found a dear girl in the Art Gallery whom I knew was earnest art student. By her work she had won a scholarship in a noted art school for the coming year. She had seen a great many pictures, of course.

"How many times have you been here?" I asked.

"Ten times," she replied, "and so far I have not yet really begun the study of color and the technique of these masterpieces of American art; I have just enjoyed the effect, lived in the atmosphere, as artists say."

A few minutes after this conversation a florid, short-breathed woman rushed up to one of my little party, and asked, "Where can I find Eleanor?"

"Who is it by, or what did you hear of it?" asked one.

"I don't know anything about it, only on the car I heard some one say that a person at the Exposition ought to see 'Eleanor'." She could not wait for us to look it up in the catalogue, remarking, "I must go right along, as I came to see the Fair." She looked about for a moment, and then, as if disgusted with the leisure way in which people were looking at the pictures or at one picture, she said, "Well, I guess they are not much interested in seeing things."

When some one else really wants to see "Eleanor" they will find "The Penance of Eleanor, Duchess of Gloucester," and F. Marion Crawford's story "Via Crucis" will come vividly to mind, and with the sight of the picture the story of the Second Crusade will be recalled. But to enjoy a picture any way connected with history one must have read history. To bring anything worthy from the Exposition it is needful to take something into it with one's own self.

Augustus Saint-Gaudens' Robert Louis Stevenson Memorial, made for Edinburg, Scotland, is a piece of sculpture, a relief which holds one spellbound. Yet while I copied the prayer he said, and remembered how he worked in defiance of invalidism, along came a couple, one of whom remarked, "That is pretty; but why was he taken that way, half reclining? Who was he, anyway?"

Let us leave the Fair for the time being with Stevenson's beautiful prayer on our lips and in our hearts: "Give us grace and strength to forbear and to persevere. Give us courage and gaiety; spare to us our friends, open to us our enemies. Bless us, if it may be, in all our innocent endeavors; if it may not be, give us the strength to encounter that which is to come, that we may be brave in peril, constant in tribulation, temperate in wrath and in all changes of fortune down to the gates of death, loyal and loving to one another."

## COTTAGE CHEESE

Cottage, or, as it is often called, Dutch, cheese is a delicacy made of sour milk which finds especial favor in hot weather. Put the thick, sour milk in a pan on the back of the range or over hot water, where it will heat slowly until the curd separates from the whey. Be careful to not let it scald too much or the curd will be tough. When it is scalded sufficiently pour it into a cheese-cloth bag and let the whey drain off. When the curd is quite dry put it into a bowl, season with salt, butter and sweet cream, and mix well. Set it in a cold place until ready to serve, then break up lightly with a silver fork and serve in a pretty glass dish on a bed of lettuce or of nasturtium-leaves with a few of the blossoms around the edge. It is best when freshly made and chilled. It is delicious served with warm ginger-bread.

Delicious sandwiches may be made of cottage cheese. Cut thin slices of whole-wheat bread, butter them slightly, place on one slice a crisp heart leaf of lettuce, put on a layer of cheese with a dash of pepper, cover with another slice of bread, press together and cut into triangles. Other sandwich combinations are chopped olives with cheese, chopped English walnuts and mayonnaise with cheese or a very little chopped onion with cheese. This last combination makes an excellent sandwich for those who like the flavor of onion. Only very tender and sweet onions should be used with cottage cheese.

MAIDA McL.

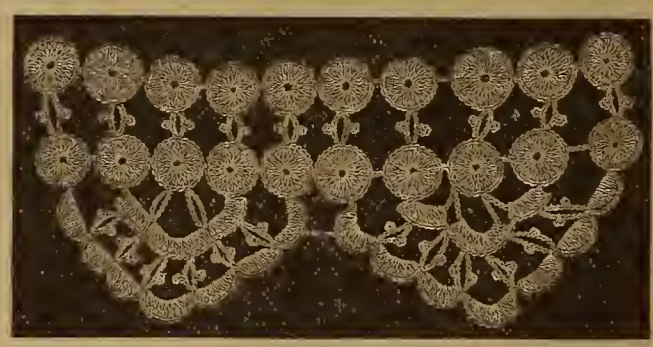
## WHEEL-LACE

Use No. 40 thread. Make heading first of wheels joined together. Ch 7; join. Put 20 doubles into ring; join. The two rows of wheels are joined as follows: Ch 7, slip stitch into 5 st from needle; st 2, catch into wheel; ch 7, picot of 5 as before; ch 2, catch into the stitch you started from.

For the scallop. First row—Fasten into fourth wheel; ch 12, catch into fifth st; ch 2, catch into third wheel at the fourth st from joining; ch 7, picot, ch 3, catch back into sixth st of first chain of all; ch 16, picot, ch 2, catch into third wheel half way between the last catch and the next joining; ch 7, picot, ch 2, catch back into the second last st of the 16 ch; ch 5, catch into middle of second wheel; turn.

Second row—Put 7 doubles into the 5, ch single into place where picots join, 11 doubles into 16 ch, single where picots join, 7 doubles into 5 ch, single where scallop begun. Break thread and fasten.

Third row—Fasten into middle of fifth wheel; ch 12, picot, ch 2, single into middle double of the 7 doubles; ch 7, picot, ch 2, slip stitch into sixth st of the 12 chain; ch 12, picot, ch 2, slip stitch between scallops; ch 7, picot, ch 2, catch back into sixth st of 12 ch; ch 12, picot, ch 2, slip stitch into fourth st of



middle scallop; ch 7, picot, ch 2, slip stitch into sixth st of 12 ch; ch 14, picot, ch 2, catch into seventh double of middle scallop; ch 7, picot, ch 2, catch back into sixth st of 14 ch. This completes half of row. The other half is worked the same as the half already done. At the last of row ch 5 and catch into first wheel.

Fourth row—Put 7 doubles into each of the five chains, 6 doubles in the seven chains.

JOYCE CAVENDISH.

## SUMMER DESSERTS

When fresh fruits are in season we are inclined to give them the preference over any made desserts; but many people cannot eat berries every day through the season of strawberries, raspberries and blackberries without feeling ill effects from them, and delicate stomachs are often obliged to forego berries entirely on acount of the seeds.

A pleasant change from fresh, raw berries is made by cooking the fruit, using as little water as possible, and then putting it through a sieve fine enough to remove all the seeds. Sweeten this juice, and thicken with corn-starch as you would make a blanc-mange, using the fruit-juice in the place of milk. After you remove the pudding from the fire beat the whites of two eggs to a stiff foam, and then beat them into the pudding; pour it into a mold, and set in a cold place, until time to serve. This pudding should be made early in the morning to be ready for dinner. It is delicious served with cream; or a thin boiled custard may be made with the yolks of the eggs. I prefer the cream myself, and use the yolks to make either salad-dressing or cheese-straws. Whipped cream is also very nice with this pudding.

If you cool your pudding in a mold that makes a hole in the middle, it makes a very pretty dessert to fill this hole with whipped cream and pile it around the pudding on the dish just before serving.

Another nice dessert for those who like coffee is made from corn-starch, using strong coffee in the place of the fruit-juice, and beating in the whites of the eggs in the same manner. Serve with either plain or whipped cream.

A coffee custard is a favorite dessert at my house. Make a boiled custard with one half pint of rich milk, one half pint of strong coffee and the yolks of three eggs. As soon as it thickens remove from the fire, and stir in lightly the whites of three eggs beaten to a stiff foam. As soon as the custard is cold set it on ice or in the refrigerator to get very cold. Serve in sherbet-glasses.

Fruit ices are very refreshing in hot weather. Any fruit-juice may be used—strawberry, raspberry, currant, cherry, or two or more kinds mixed. To three pints of fruit use the whites of three eggs, one pint of water, and sugar to sweeten to taste. Mash the fruit, mix with the water, and strain through a jelly-bag. Put the juice over the fire, add the sugar, and let it heat until the sugar is dissolved, skimming it if necessary. Let the syrup cool, and then beat into it the beaten whites of the eggs; pour it into the freezer, and freeze according to the directions with the freezer used.

Instead of dessert I frequently use a green salad with cheese-wafers and coffee as the last course of a summer dinner. For simple, green salads French dressing is preferable to mayonnaise. To make French dressing put one salt-spoonful of made mustard, one heaping salt-spoonful of salt and one half salt-spoonful of pepper into a bowl; add three tablespoonsfuls of oil a little at a time, stirring it well, and then add one tablespoonful of lemon-juice or vinegar, and beat well. Have your salad very cold, and add the dressing just before serving. I usually make the dressing at the table.

In making a salad-dressing be sure you have the best quality of oil; it is much cheaper to buy by the gallon or half gallon can. I am using now from a gallon can bought last fall, and the oil is as fresh and sweet as when the can was first opened.

Cheese-wafers may be bought ready to serve or they may be made by thickly sprinkling grated cheese over small crackers and putting them in the oven long enough to melt the cheese and very slightly brown them. Let them get cold before serving.

MAIDA McL.

## DANISH PUDDING

There are times when the farmer's wife grows very tired of her usual desserts, when she feels that she hates the sight of pie-crust, and the bread-pudding family is in great disfavor. Her cook-book receipts sometimes call for ingredients that she would have to buy "in town," which, of course, is at such a distance that she cannot take the time to go after them. It is at such a crisis that she should try the Danish pudding. A real old Southern mammy makes it for us, and I give it as she makes it:

Take "five cents' worth" of brown sugar, and melt it in a skillet, letting it burn a little. Pour it into the bowl you use for baking. Rock the bowl around until the sugar cools into a coating that lines the dish all around and up the sides. Set this aside. Scald one quart of milk in the same skillet, in which, of course, some of the sugar remained. This flavors the milk. Beat the whites of five eggs and the yolks of eight eggs separately and then together. On this the lightness of the pudding depends. Pour the milk slowly over the eggs, stirring the while. Pour all this into the sugar-lined dish, and bake in a moderate oven until it "sets." "Setting" means, of course, forming into a jelly-like substance. When done set it away until the next day, and when time to serve turn out into a dish and you will have a beautiful mold. Serve with whipped cream dotted with any preserve you happen to have.

We have always found this delightful, and where eggs and milk are easily obtained it is one of the most inexpensive puddings that can be made by any one.

L. M.

The fields are a-feather with fairy-clock
As it blows in the wind, and away in the deep
Curves of the plain the murmur of sheep,
Valley on valley and flock by flock:

Spirit of shadowing cloud and gleam,
Breathe to the heart of the dusty town,
Of winding water and windy down,
Willow on willow and stream by stream.
—Clarissa, in "The Outlook."

## SCHOOL LUNCHES

SEPTEMBER is close at hand, with the beginning of the school year, and in the rural districts the full dinner-pail will be in evidence five days out of every week. It requires a good deal of planning and forethought to provide acceptable luncheons for several children, and I am persuaded that the subject does not receive the attention it really deserves; for not only the comfort, but the physical well-being and intellectual progress of the child depend greatly upon the nourishment provided.

A long experience in teaching country schools has convinced me that few parents give any special thought to this matter, for the lunches carried by the larger number of children are neither palatable nor wholesome in quality nor presentable in appearance. Walking distances varying from one fourth of a mile to three miles and spending three hours in school-work is sufficiently exhausting to create a necessity for nourishing food; and yet the digestion should not be taxed by heavy or indigestible food, or the child will be dull and stupid in the afternoon and unable to perform its work creditably. He may even become the victim of a punishment which he does not deserve, since he is not responsible for his mental condition.

I have seen several thick slices of bread spread with chunks of butter, some fried fat pork, pie and a teacupful of stewed fruit jammed helter-skelter in a pail, carried in the careless fashion of childhood, and shook together into such a disgusting mass that even the least fastidious would rebel and drop the whole thing out of the window, going hungry until supper-time. And I have been at my wit's end to deal with the resultant restlessness, crankiness and even hysteria. Very likely the mothers had no idea that the food was not eaten with a relish. If you can provide nothing but bread and butter, spread it evenly, cut thin, and divide into convenient strips, wrapping them in a clean napkin, and it will be enjoyed more than the richest food thrown together anyhow.

Bread is necessarily the staple of the school lunch, and will become tiresome unless a variety is provided. Indeed, variety is the key-note of success. Not at one meal, but having each one different from the last. It will cost no more and will give far more pleasure.

Whole-wheat bread and brown bread make delicious sandwiches, and cinnamon biscuit or currant buns are usually much liked. Bread baked or steamed in baking-powder cans makes a dainty round slice, much nicer than the large one from the ordinary loaf. Boiled ham minced fine and mixed with mustard makes a nice filling. Thin slices of cheese are nice with brown bread. Dried beef is rather indigestible, but may be permitted occasionally, and if fish is liked, a can of the small sardines once in awhile will prove an agreeable change.

A four-ounce screw-cap jar will hold jelly or jam enough for two, and if they happen to wear the pail over their heads the contents will not spill. Cup-custards and baked apples are especially liked by my own children. Fresh fruit should always be included if possible. Apples, oranges, bananas or grapes, and figs, dates, nuts (cracked), a few pieces of candy or lumps of loaf-sugar may each have their turn, and if they are a surprise so much the better.

My children are not very small, but they are full of gleeful anticipation when they see me smuggling some mysterious parcel into the dinner-basket. Add cake if you choose; the children will like it better in the form of cookies or small cakes. When baking cookies sprinkle some with cocoanut, some with pink sugar and some with currants, and you will have a tempting assortment with very little trouble. In the same way small cakes baked in the gem-pans may be frosted with chocolate or cocoanut or lemon frosting or baked thin and two put together with jelly; or they may have raisins, currants, cocoanut or nut meats added to the batter. Wrap each article separately and put in plenty of napkins. If you object to using your fine linen ones, make some from the best pieces of a worn-out table-cloth; or, failing that, let the children fringe some squares cut from flour-sacks. At any rate, do, I beg of you, insist that they spread napkins neatly upon their desks and eat in a civilized manner. If you think this caution needless, drop into the school-house some noon and see the children wandering around dropping "gobs"—that word is not elegant, but it certainly is expressive—of soft-boiled egg, meat-rinds and bread-crusts over the floor. I suppose the teacher does her best, but a little home discipline along the same line will help immensely, and the teacher will have enough to do to look after the children who receive no home-training.

One thing more: Don't send superannuated old brass or tin teaspoons. The nicest of fruit is spoiled by the taste of brass or iron, and the children will be willing to take a little extra pains not to lose silver ones. I have been sending children to school for ten years and they have lost only one spoon in that time L. A. BURNIGHT.

## SIDDIE'S KINDERGARTEN OF SEEDS

This time of year, when nature yields such a rich harvest of flowers and fruits, Siddie's mother is having a little impromptu kindergarten with the many kinds of seeds that are so inexpensive and easily obtained. Siddie has gathered many of the seeds herself, and has been taught to put each kind separately in little paper sacks—strong sacks made of manila paper. Each sack is properly labeled. Next year mama is planning to have a large box fitted with compartments, in which the seeds are to be treasured. While mama is sewing Siddie is learning many a valuable lesson concerning these same seeds: How they are planted; how they grow; what kinds of plants or trees they become; what is the color of the blossoms, and whether they are useful in any way or only ornamental.

There is an endless variety of ways to play with seeds; even very young children will be made to love them. They will be learning at the same time, but in such a natural manner, that they will not realize they are being taught. The ideas of color, shape and size can be acquired by the little ones, as can also that of numbers. With but little trouble mama can teach them to place two or three or four of a kind in a row.

Siddie's mama allowed her to spread her seeds over one corner of the carpet, provided she picked them up when the play was over. The figures in the carpet represented different gardens, and watermelon and cantaloupe seeds made nice melon-patches; pumpkin-seeds illustrated how pumpkin pies grew; apple-seeds made a delightful apple orchard, as did peach, quince, prune and pear seeds do duty for their respective orchards. When mama says, "Now, my dear, we will make a garden that has many things in it," Siddie is delighted, for she knows the different seeds she expects mama to call for. When mama says, "Plant a radish," she hunts until she finds a radish-seed, and then plants it; the same way when mama asks for a plum-tree, or whatever her mama desires to go in this "mixed up" garden.

Siddie has learned to add, subtract, divide and multiply with these seeds, and yet she scarcely knows that she knows any of these processes. She is never allowed to become tired of this seed hour, for then half the benefit would be lost. When she grows older she will gently be led into new beauties and increased knowledge of plant and seed life, and from that into the mysteries of life itself. She will be shown how God has provided protection for each seed from the hot sun by giving it a little house in which to dwell. When she has acquired a good understanding of the growth and development of one or two plants and trees she will have a bright glimpse of all plant life, and all that she sees growing will have an added charm to her. She will notice more closely, see more that is around her, and know more in all ways; in fact, she will have something to think about.

The reason so many children are irritable and restless is that they do not know how to think; their little minds have never been accustomed to habits of concentration. They play at one thing five minutes, then at another three minutes. As mothers we should endeavor to guide the thought-powers of our children, that they may be completely absorbed in whatever they are doing. Then they will have the power to learn and do in after-life.

E. B. S.

## REMODELED HOSIERY

In these days of extra long hosiery it is often a well-meant piece of economy to cut down for children some of the hosiery that have been worn at the feet, or badly worn at the heels by the constant slip of low shoes. Cut off the foot of the hosiery and cut a slit for a heel (see Fig 1), which can be knit in. The toe can be attached as shown by Fig. 2. This remodeled hosiery will do very well for children's wear.

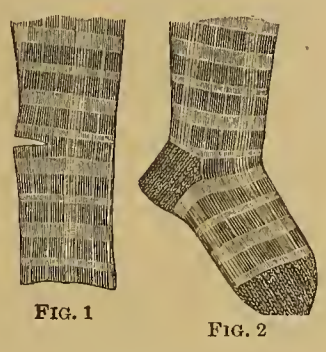


FIG. 1 FIG. 2

If the washing of the hosiery was more carefully attended to they would not break so quickly. They should always be washed by themselves and never rubbed on a wash-board, nor be rinsed after cotton clothes, thereby leaving them full of lint.

Knitted stockings could be readily renewed after this pattern by knitting in a new heel and toe, and if this shortens them, by adding a few rows of ribbing at the top to make them long enough. B. K.

## NATURE'S FAIRIES

The children in old England used to sing of a tree they loved best of all except the Christmas tree. The odd song said:

"There's naught so good in trees
As plum-pudding tree!
Cut and come again."

The song was an assurance that the fruit or pudding hung on the tree ready cooked.

There is a real tree in Arabia, a kind of palm on which the fruit grows as large as an orange and tastes like gingerbread, and the Arabs are very fond of it. Boys who live where gingerbread grows on trees can surely have their pockets full; but the little Arab boys seldom have much clothing, and a pocket is doubtless an unheard-of thing.

In South Wales there is another strange shrub that must be inviting to the wood-nymphs, and that is the shoe-black-plant. A person can actually blacken his shoes with the juice of this plant.

In Tibet is to be found the tree which has so many characters on its leaves that it is called the tree of ten thousand images. The letters of the whole Tibet alphabet are found on its leaves. The tree is guarded by high brick walls, and an old emporer of China built a silver dome to shelter the tree, yet two French missionaries say they have seen the tree and it actually bears these strange marks on its leaves.

In Australia the beautiful acacia is called the trembling-tree, for it is never at rest.

Coming nearer home we find the needle-and-thread tree in Mexico. It's real name is maguey-tree. There is a thorn which grows out of this tree, and attached to that is fiber. The thorn answers for the needle, and the fiber is the thread. The natives of that country dress very simply, and they go to the tree and pick off their threaded needle and sew with it.

The camel's-thorn grows in the deserts of Arabia, no matter how sandy the soil. The Arabs found that by cutting into the plant very near the root they could sow melon-seed and it would grow, so they have watermelons grown on the thorns of the desert.

There is in California a fine-looking evergreen tree which is aromatic and is called the headache-tree. People say that if one rubs the leaves on his face it will give headache, and some claim that if one has the headache it will cure it by rubbing the hands as well as the face with the leaves from the tree.

There is a very odd plant or flower on the island of Sumatra. This flower sometimes measures three feet across, and holds two gallons of water. It has no leaf or stalk, but sits upon the root of another plant, like a head of cabbage.

Probably every lover of trees has seen the little horseshoe-mark on the under part of every branch of the horse-chestnut tree. The roof of Westminster Abbey is made of chestnut wood.

In song and story there are many legends of trees, and nearly every plant and tree has its saint, named because the tree blossoms at the celebration of the Saints' Festival.

The apple-tree has St. Angelus and Pope Pius V. as its saints, the festival occurring in May.

For the horse-chestnut there is St. Bernardine of Siena, made saint May 20, 1444.

The ash is the tree of Venus. Just why the ash is sacred to Venus is not known, for she loved the apple, the rose and the myrtle.

Legend says the cross was made of aspen, and that no green thing grows near an aspen-tree.

The nettles which are in disrepute with most of the world have their saints. The common red nettle blossoms in the festival of St. Marcellus, and the woolly nettle greets St. Fabian.

In the days when divination flourished men went a long ways to obtain a wand from a hazelnut-tree.

The poplar-tree was made sacred to Hercules, but beggar's-oak was not given a saint, because its sap, or life blood is so black that ink used to be made from the gall.

The sycamore-tree is very long-lived. St. Hieron, who lived in the fourth century, said that he saw the veritable sycamore-tree in which Zacchaeus climbed in his desire to see Jesus. Hieron is called the saint of the sycamore-tree.

There is an old legend that the more a walnut-tree is beaten the more fruit it yields; so the walnut is dedicated to the saint of chastening.

The hawthorn has Milton's song to perpetuate its glory:

"Every shepherd tells his tale
Under the hawthorn on the dale."

Tan-Sein was the musician in the court of Mahomet. There is a tree that grows on the tomb of that musician which the people call the "poet's tree," and concerning which legend assures us that any one who chews a leaf of that tree will become a singer almost divine.

Baucis and Philemon were husband and wife, living in the far East, when Jupiter went in disguise all through Asia. He was welcomed by this couple in their simple cottage, they giving of the best they had. He rewarded them by changing their cottage to a temple of worship, making the husband and wife priest and priestess, and at very old age changing their bodies to trees, which ever after stood outside the door of the temple. From this myth has doubtless come the custom of planting trees in memory of noted people.

The myths of trees are strange and varied. One of the most beautiful of all the legends is that concerning the reed that grew by the river-bank. A strong hand tore up the reed, the pith was drawn out, and the empty reed was notched. This was the first flute ever made. There came from it such sweet music that the men wished is would never cease. This Greek legend teaches that true music and the power of a divine life can come only to those who are taken from the world's muddy places and their worthlessness gashed and cut as was the reed. Further the Greek legend said, "Be made perfect by the things you suffer."

MARY JOSLYN SMITH.

## TRIED RECEIPTS

CREAMED PEAS IN TURNIP-CUPS.—Select young turnips of a uniform size, cook until tender; when cold make into cups by scraping out most of the centers with a sharp knife. Cook fresh green peas in a very little water, season with salt, pepper and nutmeg. Thicken with corn-starch and butter rubbed to a smooth paste. Fill the cups, which have been brushed over with melted butter, and then put into the oven to brown. Serve on a bed of parsley.

RICE AND BEAN ROLLS.—Mix with two cupfuls of boiled rice one half cupful of finely chopped butter-beans, two tablespoonfuls of melted butter, two well-beaten eggs, one tablespoonful of minced parsley; moisten with enough milk to mold into little rolls, put into a buttered pan, cover, and bake in a hot oven for fifteen minutes; uncover, and let remain until a delicate brown. Garnish with sliced tomatoes rolled in flour, salted and fried in hot fat.

PICKLED BEANS.—String and cover with cold water, set aside for half an hour; drain, then cook in salted boiling water until tender; again drain, put into glass cans, cover with scalding-hot vinegar seasoned with grated horseradish, salt and pepper.

SALAD IN TOMATO-CUPS.—Form the cups by removing a slice from the top, and with a teaspoon scoop out the inside, leaving only the thick portion. Garnish at the base with water-cress and sour cherries, and fill with celery and nut salad; cut crisp celery fine, add about half the amount of powdered peanuts, mix in two spoonfuls of cold cooked peas, then blend with mayonnaise.

RED RASPBERRY SAUCE.—Mix one half cupful of sugar, two cupfuls of red raspberries, one tablespoonful of strawberry syrup, one tablespoonful of melted butter, lemon-juice and a small cupful of water; boil fifteen minutes, then strain. RUTH VIRGINIA SACKETT.

## TURNIPS

That homely vegetable the turnip, especially the yellow turnip, deserves to appear on our tables far oftener than it ever does in the average family. It is a vegetable which should be useful alike to country and city housekeepers, for it can be raised by the former at a very small expense, and in the city is always one of the cheapest vegetables offered in city markets, and there is not a month of the year when it is not easily obtainable.

Perhaps the most common method of serving turnips is that of boiling with a "New England boiled dinner." Mashed turnips seasoned with salt, pepper and butter is about as elaborate a dish as is usually attempted with this vegetable. In vegetable hash—that is, hash made of all kinds of vegetables—turnips should hold an important place, and such a dish is always relished by hungry men for either breakfast or tea, and is healthful food for the children. A small onion chopped fine and cooked with vegetable hash imparts a delicious flavor. Cold turnips sliced thin and pickled are liked by many persons fully as well as pickled beets. These may be served with either hot or cold meats.

Turnip salad makes a most attractive dish, and a delicious one as well. Boil the turnips until tender, and when cold chop quite fine. Arrange some lettuce-leaves on a fancy plate, and place the turnip on them. Mince an onion very fine and scatter over the turnip. Color mayonnaise dressing a pretty dark green with liquid coloring and pour over the top. Equal parts of potato and turnip also make a delicious salad, but for this mayonnaise should not be colored.

A mixture of cold vegetables chopped fine and covered with mayonnaise is pretty sure to find favor any hot day. If lettuce is not at hand any kind of green salad may be used, such as cress, celery-leaves, or the white leaves of a cabbage; or the salad will be nearly as appetizing if no green at all is used, but cannot, of course, be served as daintily.

Boiled turnips, either warm or cold, may be served with a white sauce to which has been added chopped pickles, olives, or capers. A little tarragon or cayenne pepper is an excellent and appropriate addition to such a sauce.

Cold boiled turnips, on account of their rich color, make a handsome garnish for cold meats if they are cut into fancy shapes with a vegetable-cutter, or even in triangles with a sharp knife.

Cubes of turnip alternating with olives make a very tasty garniture for baked or boiler fish of any white variety. A housewife whose viands are always the delight of her family and guests says that she never intends to be without turnips in the house, for they are safe to depend on in an emergency. And it should not be forgotten that with all its other virtues the turnip is a most healthful vegetable. INEZ R.

## KNITTED EDGE

ABBREVIATIONS.—K, knit; o, over; n, narrow; k 3 tog, knit 3 together.

Cast on seven stitches and knit across.

First row—* slip 1, k 1, o, n, o, n, k 1.

Second row—Knit on 2 (this is done by knitting a stitch, and turning it

back on the needle that has 6, then knit the row plain).

Third row—Slip 1, k 1, o, n, o, n, k 3.

Fourth row—K 4, turn and slip 1, o, n, k 1.

Fifth row—Knit plain.

Sixth row—Slip 1, k 1, o, n, o, n, k 3.

Seventh row—Slip 1, k 3 tog, k 5.

Repeat from *. CLARA WHITE.

## "RAG" RUGS

These rugs are not new, and yet they are still novelties in some places. Few housekeepers, even on a farm, make the old-fashioned rag carpets any more, yet the most fastidious "city lady" is proud indeed if she is the possessor of a home-made rag rug. The most beautiful one I ever saw was in Denver a few days ago. It was made from an old red and green ingrain carpet "that mother had for years." The "rags" were cut about half an inch in width, but were not even sewed together, as the weaver was an expert and said she could weave them without. A border of black gave an effective finish. One has no idea how handsome these rugs are until they have seen them.

Even the common rags we used to weave into carpets make serviceable and good rugs for the "living-rooms," but the odds and ends of silk and velvet sewed neatly together (after being cut in strips) make the most dainty rugs. They also make beautiful portieres. A yard of silk will make a yard of rug or curtain when it is woven. Bright-colored braid or even tinsel weaves in very prettily. Do not have the braid in lengths of more than half a yard. The finer the rags, the prettier the rug.

These "rugs" are not to be despised, for they make delightful slumber-robes. And surely this is an excellent use to make of material that would otherwise be useless.

### BABY'S SCRAP-BOOK RUG

It was a most comical affair, and yet is was a great success, I assure you. It was simply a square of flannel covered with pictures of all sizes and descriptions. There were cambric dogs, silesia butterflies, silk flowers, velvet fruits, muslin girls and calico boys, to say nothing of the et ceteras. It was lined with an old comfortable, so as to be soft; a little baby-pen surrounded it, a pretty pillow adorned one corner of it, and baby played and slept upon this rug for hours at a time. The endless variety of pictures on the rug afford a source of amusement to the wee tot, who appears to think himself in Alice's "Wonderland." Children, little and big, will be good if they are well and have something with which to amuse themselves. The tiny ones desire amusement simply; the older ones must be amused, entertained and instructed.

ELLA BARTLETT SIMMONS.

## WITH GRAPES

A pleasant grape jelly is made of the grapes that have only half ripened. This is usually a much lighter-colored jelly and not so strong in taste as that made of ripe grapes.

If some of the fruit is removed at this period the better bunches will develop and ripen much better. The perfect bunches if incased in paper bags will perfect and be in fine condition to sell to a fruit-stand or to pack away for Thanksgiving. To do this successfully, have a number of sticks put in a good-sized box from one side to the other, the distance of a bunch of grapes from the bottom, and secure them to the sides of the box. Then wrap your grapes carefully in white tissue-paper, tie them to the sticks so they will not touch, and fill in all around them with dry sawdust. I have seen grapes kept in this way served at Christmas dinner that looked as fresh as when picked from the vines. They should be picked on a dry day and be free from moisture and handled as little as possible, so as not to remove the bloom.

To make grape butter, pulp the grapes, and stew the pulps first—the seeds will rise to the top and can easily be skimmed off—then add the skins and one half as much sugar as stuff; cook slowly one hour and stir constantly, as it is apt to burn.

To those who put up fruit on a gasolene-stove let me recommend the use of asbestos mats under your vessels, so as to keep the fruit from burning; even then it must be watched very closely. Spices tied in white muslin may be added to some of your jelly, making it a nice change from the rest.

Sweet-pickled grapes are a good relish with meat, and may be made as follows: Wash your grapes and cut the bunches in half. Place them in gallon jars and cover with a rich spiced vinegar syrup. The proportions are one half pint of vinegar to one pound of sugar, and spiced to taste. Heat and pour this over your grapes five mornings in succession. At the last cover with a paper and cloth tied over the top.

A good butter may be made of two thirds grapes and one third apples. This is convenient where the family is fond of "spreads," and is also very nice to use in lunch-baskets where children are compelled to take them to school.

All through the season eat as many grapes as you can. There is no fruit more healthful, although the scare of appendicitis has very much affected the sale of grapes in some localities. But the theory is an exploded one, and grapes are healthful and fattening.

With your surplus make some grape-juice to use in sickness; extract the juice, sweeten a very little, boil, skim, and bottle and seal while hot. With a little chopped ice added it is a very nutritious and cooling drink in sickness. B. K.

## A CONVENIENT STOCK

The dainty ribbons worn around the necks of young girls, and of older women as well, often lose much of their beauty from the careless and slouchy manner in which they are worn. If they are worn over a linen collar there is always a temptation to use the collar after it should have been sent to the tub, and a soiled edge is pretty sure to creep up somewhere. If the ribbon is put around the neck without any stiffening it quickly becomes soiled and crumpled, and most patent stiffenings are uncomfortable for the wearer. But some genius has devised a sanitary and comfortable stock which keeps the ribbons fresh for a long time. To make one, select a good-fitting linen collar and cut a pattern by it. Cut a piece of celluloid the exact shape of the pattern. Now cut two pieces of white muslin a trifle larger than the celluloid. From the center of one of these cut a piece about an inch wide. Then put the two pieces together, using the two cut pieces as a lining for the whole piece, but having them come together at the ends. This will leave the inch-wide space on the lower part. Bind the edges on the machine with narrow tape, then slip the celluloid into the place which has been cut. Work buttonholes in each end and in the center and the stock is complete. When the covering becomes soiled it is simply slipped off the stiffening, laundered without starching, and replaced. Such a stock cannot "wilt" or get twisted out of place.

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*"It is a wonder. Our washing is very large and we "have always had two women on Mondays and one on "Tuesdays. Our cook and the yard boy* **now do** *the "washing in 4 hours much better than before."*

FARMERS' TESTIMONY

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The washer I received from you is the best I ever saw. It will do all you claim for it. My wife can do the washing in three to four hours, where it took a colored woman a whole day to do it. We have ten boys and three girls, and you can judge from that that we have large washings. My wife and daughter would not part with this machine for twice what it cost. We live on a farm.

LEVI H. HARRISON.

FARMERS SAVE TIME AND MONEY

FIVE MILE, TEXAS, August 9, 1900.

The washer just received. Tried it, and am very highly pleased with it. Four women tried the machine and all liked it. It does not take a man to turn it. A farmer will save time and money by buying it, and throwing old style washers away. MRS. SARAH E. MAUVIAS.

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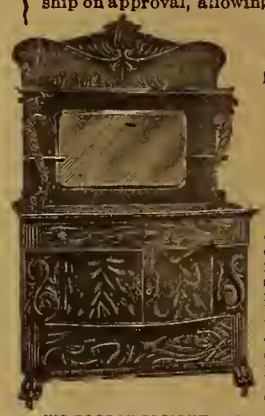

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### SORROW PAST

The shadow has gone by;
A peace fills all the sky;
My days are warm with quiet, sunny life.
My nights are full of rest;
Thy love is manifest;
I thank Thee Thou hast led me from the strife.

I know that toil and pain
Will come to me again;
That many shadows on my life must fall;
I know by long years past
Such quiet cannot last,
And yet I thank Thee it has come at all.

When darkness falls at length
I shall have gathered strength
From these sweet days of pleasantness and calm;
And with sincerest heart,
When sweetest lights depart,
I may, through all, lift up my voice in psalm.

Now, with no care or fear,
Because I feel Thee near;
Because my hands were not reached out in vain,
May I from out my calm
Reach humbly out some balm,
Some peace, some light, to others in their pain.

And when at last I sleep
May others come and reap
The harvest planted here by these weak hands;
A harvest white for Thee
I pray it thus may be.
Show me my field; I wait for Thy commands.

—The Epworth Herald.

### MINDING MY OWN BUSINESS

A WASP and I are excellent friends. She has her nest in the vacated home of a boring-bee, in the bench on the front porch, where I sit and do a great deal of my writing. She flies in and out, carrying her supplies for her family, and, as I never molest her, she never does me. I think the reason we get on so amicably is that we mind our own business.

Now, if I, the larger and stronger of the two, were to begin to interfere with her—to invade her rights, to stop her out of her own front doorway, or to take her food out of her hands as she is coming home from market with it—bless me, what trouble there would be! My neighbor would get angry, and no doubt would seek to defend herself, and then I suspect that I should lose my temper and do something very ugly—perhaps try to kill the poor wasp.

Nothing makes one neighbor unkinder to another than that the one imposed on should stand out for his rights, strange as that may seem. If a man injures another, and the one injured turns on him, it often makes the one committing the injury feel like going and doing something worse.

If I were to interfere with the rights of this pretty neighbor of mine in her quiet little home in the bench she might rush at me and try to sting me, and then most likely I would try to knock her down and stamp on her. Instead of this we live peaceably. I am doing my writing close by her front door—a hole a quarter of an inch in diameter in the under part of the bench—and she goes and comes many times in an hour with a bug or a fly in her mouth for family use.

I like my neighbor. She is industrious, economical and provident. We might be enemies. We could fall out at any time. All I should have to do would be to poke my finger at her, or to put a stick across her door, or to strike her, just to let her see that I am bigger than she is. But no; we are not enemies, but capital friends. She has been living next door to me all summer, and we have not had a quarrel yet, and I don't believe we ever will have.

A boy the other day tried to make trouble between us by stopping up my neighbor's door with a stick; but I stood up for my absent friend, and we are on good terms still. And the secret of the whole matter is that we mind our own business. She lets me write, and I never prevent her from putting her marketing peaceably away in her pantry. I watch her movements and admire her industry and write this article about her, but never impose upon her; and just now one of her family lit upon my coat-sleeve and brushed her clothes, and then flew off to the hop-vine, buzzing thanks as gratefully as any well-mannered wasp that you ever saw. We minded our own business. If we hadn't there might have been trouble.

Of course, my friend Wasp is provided by nature with the means of making others "live peaceably" with her. Like the courtiers and other gentry of the olden time, she wears a sword, and is not slow to draw it on occasion. If she thinks herself attacked, out she whips this delicate blade from its scabbard and puts her antagonist to rout in a short time. She is made by nature very skilful with the sword. And this makes her respected among her fellows.

But it is better to get along with persons out of love for them than out of fear. It is always best to do a thing because it is right than because it is policy. The best reason for trying to "live peaceably" with any one is because our principles induce us to do so no less than our interests. We may act from low motives and do well—the world is full of evidences and instances of that. And we may act from high motives and do better—the world is not so full of acts and lives of this sort as it might be.

It is perfectly right that we should be true neighbors and friends with all the good whom we meet, because it is policy; for if we are not, they can make us be. But I can't help thinking that it is far better and far more lovely that we should be kind and good-humored and affable and respectful and gentle and neighborly because we like to be so, delight to be so, and should be ashamed to be otherwise.

On the whole, I feel very much obliged to my handsome, good-natured neighbor for the lesson she has taught me; and I hope she will catch bigger and fatter flies than ever, and more of them, too.

FRANK H. SWEET.

### SELF-RELIANCE

A celebrated author used to relate this story of the way in which his teacher in mathematics taught him to depend upon himself:

"I was sent to the blackboard, and went, uncertain, full of whimpering.

"'That lesson must be learned,' said my teacher, in a very quiet tone, but with intensity. All explanations and excuses he trod under foot with utter scornfulness. 'I want that problem; I don't want any reasons why you haven't it,' he would say.

"'I did study it for two hours.'

"'That's nothing to me; I want that lesson. You need not study it at all or you may study it two hours, just to suit yourself. I want the lesson.'

"It was tough for a green boy, but it seasoned me. In less than a month I had the most intense sense of intellectual independence and courage.

"One day his cold, calm voice fell upon me in the midst of a lesson I was saying—'No.'

"I hesitated, then went back to the beginning, and on reaching the same point again, 'No!' uttered in a tone of conviction, barred my progress.

"'The next!' And I sat down in blushing confusion.

"He, too, was stopped with 'No!' but went right on, finished, and as he sat down was rewarded with 'Very well.'

"'Why,' whimpered I, 'I was saying it just as he did, and you said 'No!'

"'Why didn't you say 'Yes,' and stick to it? It is not enough to know your lesson; you must know that you know it. You have learned nothing until you are sure. If the world says 'No,' your business is to say 'Yes,' and prove it."—Peninsula Methodist.

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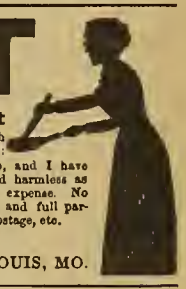

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# The Glamour of Riches

BY FRANK H. SWEET

SUDDEN glory had come to the name of Willer; and now, after a long, unrecognized existence beneath the social stratum, its amazed owners were being overwhelmed with an embarrassment of attention. Mrs. Peter Willer, the blacksmith's wife, was included among the select few invited to Mrs. Loring Blake's tea; Bet Willer, whose husband occasionally condescended to accept a day's work in preference to starving, scarcely recognized herself as Elizabeth Ann Willer, who began to share the common glory of the name in the columns of the county paper; and Sukey Willer, and Roxy Willer, and Bob, Tom and Dick, and all the other Willers burst forth in the same manner, wondering, but ready to grasp their opportunities.

Hitherto the name of Willer had not stood very high at Oak Bluff Point. The men had a way of selling their votes at elections, and the women of telling the community affairs from door-step to door-step. They were not apt to be accumulative or ambitious in youth, or venerable in old age; and, with few exceptions, the storekeepers were discreet in running open accounts with them, and note-makers and the county judge in accepting them as sureties.

But all this was changed now. The name had become legal tender, and instead of raising their eyebrows in dismay, the discreet storekeepers rubbed their hands at the sight of the long rows of figures which were trailing from page to page on the Willer accounts. And when the wives and daughters of these same opportunity-grasping Willers came out in blazing millinery and gewgaws the ladies of the North End shut their eyes in one momentary gasp of horror, and then came forward and embraced their martyrdom.

It all came about from a paragraph in a California paper, which stated that John Willer had struck it rich on the Klondike River, and would soon be ready to start for the East with nearly a thousand pounds of gold. A Connecticut paper copied this, but substituted "Connecticut" for the word "East." Then the "Oak Bluff Point News Gatherer," remembering that a John Willer had once been upon its delinquent subscription list, and had afterward disappeared, copied from the Connecticut paper, with sundry changes for accuracy's sake. So when the people of the North End opened their papers one morning and found under startling headlines that "Our esteemed fellow-citizen John Willer is about to return from Klondike with a ton or more of gold," followed by the editorial comment that he would undoubtedly build a church and town library and factories for the working-people, and would establish a bank and a railroad to Plattsburg and a steamboat line to Burlington, besides other improvements which "will advance our enlightened community to the front rank, from which it has long been debarred by isolation," they were ready and eager for the social sacrifice.

A little investigation disclosed that there were many John Willers, and that the whereabouts of three of them were unknown. These three were of distinct branches of the family, and either might be the one with the plethora of gold. So the name must be reverenced in its entirety.

But as the white flocks of sheep are credited with black intruders, so in black flocks are usually found some with white fleece. It was so in this case.

Floyd Willer had struggled through the public school against the jeers and opposition of his own kindred and the indifference of those who thought time given to one of his name was wasted. From there he had worked and fought his way through an academy to college, through a technical institute; eager, earnest, obstinate, always more or less seedy in appearance, never with a dollar to spare above needed expenses, but at last coming back strong and sure of himself, fortified with practical knowledge of mechanical sciences and eager to apply them to the every-day work around.

But he was Floyd Willer; and although they acknowledged his ability and gave his views consideration, and asked him to their public entertainments and gatherings, none of them admitted him to the inner circle of social life. He invented a propeller, and explained it to Judge Potter and to Lawyer Blake and to the few other moneyed men of the place; but, while they listened with much interest, all refused to become identified in any company for its manufacture or sale. He studied the lake question and the advantage of summer travel, and formulated a plan to run a steamboat from Oak Bluff Point to some desirable railroad connection on lower Lake Champlain. Their shore was just such as summer-cottage builders desired, he argued; it was high, bold and commanding, almost worthless to the present owners for farming purposes, but very valuable for building sites. A boat line would not only be profitable to the stock-holders, but would help develop the surrounding country. And once more they listened, acknowledged the soundness of the plan, but declining to help its advance. Then he put his knowledge of civil engineering into practical use by surveying a line for a railroad from Oak Bluff Point down the west coast of the lake to Plattsburg. It took several months of his time, and cost some money, and then came to naught, as had his other plans. And only when a few weeks later he learned that Lawyer Blake was negotiating with a civil engineer at Plattsburg for indentically the same survey did it come home to him that it was not his plans, but his name which was at fault. These people were willing to risk their money, but not willing to risk the name of Willer. They were not yet ready to believe that good could come from that quarter.

So for the present his plans were laid aside. He would wait for his profession to accumulate what it could; and as it increased he would secure his propeller by patent, and perhaps invest in a small excursion-boat or in some of the desirable bluff land. In time they and his earnings together might yield enough to establish the steamboat line and its connections. It would take years, perhaps a lifetime; but he would rather wait for a tardy accomplishment than again attempt to form a company, even though the ready capital should assure success from the start.

He was fond of the water, and as a boy had been a not unskillful boat-builder. There was little call for his professional service as yet, so he began to utilize his spare time in fashioning skiffs and dories and other small water craft, which could be readily sold at Burlington or Plattsburg.

To facilitate this work he took up his abode temporarily in a rough-built cabin which had belonged to his father. It was near the lake and half a mile or more from the village proper. Behind it was a long, low shed, in which was a bench and his tools.

He was at work here one day when he heard the sound of carriage-wheels, followed presently by firm, ponderous footsteps coming round the end of the cabin. Looking up from his bench he saw Judge Potter approaching.

"How do you do, Floyd," the Judge said, advancing with gracious cordiality. "Always at work, it seems. Thought likely I would find you here. I wish to have a talk with you."

Floyd looked at him with questioning curiosity. It was Judge Potter, certainly; but why had he brought his social-equality voice along? He had never wasted that upon him before.

"How do you do, Judge," he answered. "Let me offer you a stool; it is the best I have here." He drew a rather rickety three-legged affair from under the bench and placed it beside his visitor. "Or there is the tool-chest, if you prefer. It is more substantial."

"Therefore more suitable for a man who weighs two hundred and fifty," smiled the Judge, as he seated himself cautiously upon the chest. "What a trim-looking lot of boats you have here, Floyd! Never mind explaining them, though," as the young man moved toward a tiny skiff he had just finished. "I am not an expert in curves and angles. What I am here about is the steamer line. Would you mind going over some of the main points again?"

Floyd stared, then laughed a little curtly.

"What's the use?" he said. "When I went to you about the matter I was in the first callow enthusiasm of the idea, and did not realize the fool's quest I was on. Suppose we dismiss the subject altogether. I haven't money enough to get the invention patented, much less to help start a steamboat line."

The Judge picked up a shaving with the point of his cane and twirled it complacently.

"Sometimes an idea is worth more than capital," he observed, blandly, "especially when there are carefully worked out plans in the background. Now, I have been thinking over that steamboat line, and the more I think, the more the scheme grows on me. It is sure to be profitable, and will become more so year by year as travel increases. And then your idea of buying up the bluff land, and all the low-priced land about the intermediate wharves we build along the way; why, that is worth a pretty penny in itself! Let me see, a hundred thousand, I think you said?"

"Yes," Floyd found himself saying, with reluctant eagerness; "my idea was a stock company, capitalized at one hundred thousand dollars—that is, a hundred shares at a thousand dollars each. We shall need two boats, of course; but there is one for sale at Burlington now, almost new, and to be had for one third its cost. I've been down and examined it. As for the rest, we shall need commodious wharves at each end of the line, and freight and office buildings. The intermediate wharves need not be very expensive. We should—" He paused abruptly, and in a sudden revulsion of feeling took up a hammer as though to resume work. "But excuse me for allowing myself to be carried away, Judge. I've thought over the scheme until it has grown very real and personal. It's a sure thing if one can go into it. I can't. Even the few hundred I had were sunk in my railroad survey down the shore."

The Judge nodded indulgently.

"That's all right, Floyd," he said; "we are not looking to you for money. Profitable enterprises usually have a combination of brains and capital. We are ready to furnish the capital. In brief, I will take thirty shares, and my brother and a friend fifteen shares each. That will give us a controlling vote. Then I think Lawyer Blake and three or four others will take from five to ten each. But, at any rate, there will be no difficulty in floating the rest of his stock."

Floyd dropped his hammer and sank upon the stool.

"Do you really mean," he asked, huskily, "that you intend to go into this thing?"

"Of course." Then, a little hurriedly, "I was rather—abrupt with you before, because—because I make it a business rule never to go into anything without ample time for deliberation. Understand? But about the other boat? I telegraphed to my brother at Albany this morning—he controls a Hudson river line, you know—and he wires me that they have a first-class, almost new boat which they will sell for a song. They are putting in larger ones to meet their increasing patronage. Now, I think that you had better go and examine this boat at once, and also the one at Burlington. Take plenty of money with you, and buy at the lowest possible cash prices. And, by the way, you had better keep right on to New York and contract for such other things as the line will need. Now that we have decided, it is best to hurry matters so as to be ready for the summer travel."

He rose from the chest as though the interview were over; but before reaching the door he turned back to the young man, who was still sitting on the stool, dazed, incredulous.

"Oh, yes, about your share. I wired my brother, and he thinks that one sixth will be fair in this case. So we will issue a hundred and twenty shares, of which twenty will be presented to you. The other hundred will form the capital. Of course, there will also be a regular salary attached to your office as superintendent and general manager. Come to my house at three o'clock this afternoon and we will provide you with funds and draw up papers and get the company upon its feet. As many of the proposed stock-holders as possible will be there, and my brother will wire to us from Albany. Do not forget the time—three o'clock."

He was out of the shed and around the cabin before Floyd recovered sufficiently to spring from the stool and rush after him.

"Oh, Judge, just one moment," he called; "I don't quite understand this thing. What does it mean? How do you dare to—to trust me with so much money, and so much power? As I understand it, you wish me to do all the buying and to control the management?"

"Of course; that is the only way for a new company to succeed. You are familiar with the details, and know just what is wanted and just what to do. We are ignorant. When a lot of greenhorns divide the control of a business among themselves there is sure to be confusion. And as to trusting you, Floyd," a rather enigmatical smile twitching the corners of his mouth, "remember I have known you a good many years. But in this case I am willing to confess that it is chiefly on account of the name; I am glad to be associated with the name, Floyd." With that the Judge turned away, chuckling and murmuring to himself, "I do believe the boy has not seen the paper yet."

Ten minutes later, as Floyd was mechanically packing his tools in the chest, he heard other footsteps coming around the cabin, this time light, nervous and hurried. Turning, he found himself face to face with Lawyer Blake.

"Good-morning, Floyd. Glad to see you looking so well this bright day. How's boat-building, eh?" Then, without waiting for an answer, he continued, nervously, "Didn't I see Judge Potter leaving here just now? I hope it wasn't about the boat scheme I was considering?"

"Yes, it was just that," Floyd answered, drily; "the boat scheme you refused to consider. He has arranged for shares enough to assure its success."

The lawyer's countenance fell.

"Too bad! too bad! too bad!" he muttered. "I had decided upon that very thing myself. However," more briskly, "as I can't have controlling shares, I must content myself with such nibbles as I can get. The scheme has money in it, unquestionably. But there's another matter I wish to speak to you about—the railroad, you know. I suppose you've heard about my—my engaging a civil engineer from Plattsburg?" hesitating a little and regarding Floyd through the corners of his eyes. "That was because—because I never like to take risks on one idea. I like to go all around a thing—have two or three views and plans, you know. Well, this man is good enough in his way, but he hasn't the divine art of controlling—managing. See? Now, what is needed is some one to overlook things—some one whose name and influence will count with desirable stock-holders and patrons. In short, we want you. The duties will not be onerous," persuasively, "and will in no way interfere with the steamboat line or any other plans you may have in contemplation."

"But why me?" questioned Floyd, wondering if he might not be asleep and all these incredible propositions the phantasies of a nightmare; "there are hundreds just as capable as I am—and more so. And, besides, I have no money to put into the stock."

"None is wanted," quickly. "I know capitalists at Plattsburg who will be glad to take the stock. There is money in the thing, and they will be shrewd enough to see it. What we want of you is advice and general oversight; but, more than all the rest, we want your name. That, with your known integrity will be worth more to the company than mere capital. I am frank, you see. In return we will give you an interest in the stock and such salary as your position as superintendent or director or president may warrant. You have the figures of your survey, I suppose?"

"Yes, and plans and estimates of everything. I was very careful in their preparation."

"Good. They will prove valuable." Lawyer Blake began to button his coat, preparatory to leaving. "We may count on you, then, I suppose?"

"So far as will not interfere with my duties to the steamboat line," Floyd answered. "But it is all strange, incomprehensible to me. I cannot understand why my name will be of use."

Lawyer Blake smiled, but did not answer. As he went around the end of the cabin he chuckled and said under his breath, "I do believe the boy has not read to-day's paper."

On the way back he passed two of the village merchants, both hastening toward Floyd Willer's boat-shed. They reached there at the same moment. Floyd was standing with his face toward the lake, still engaged in trying to unravel the problem of his name being of value.

"Oh, Mr. Willer," the men called simultaneously. Then they looked at each other and laughed, and the smaller one stepped back with a nod which signified that he yielded the other precedence. The larger man accepted the courtesy with a reassuring glance.

"I suppose we're here on the same errand," he began," so we'll combine interests. Is that invention of yours sold yet, Mr. Willer?"

"No, not yet," Floyd answered, wondering what new avalanche of good fortune was sweeping down upon him.

"Well, we'd like to make a trade with you if we can," eagerly. "Would, say fifteen thousand be an inducement?"

"Twelve thousand," whispered the smaller man, cautiously.

"Twelve thousand would be a very good price, I think," said Floyd, overhearing.

"Ten thousand, then, ten thousand, ten thousand, ten thousand," urged the smaller man, excitedly.

Floyd stared.

"Look here, gentlemen," he said. "I don't quite understand what is in the air to-day, but it seems to be very highly charged with stupendous surprises. I haven't fixed any price on my invention, but am willing to sell it, and I think that twelve thousand dollars is a very fair valuation. However, my idea was to manufacture the propeller myself, turning over the bulk of profit to some company that would furnish the capital."

"That's just what we'd like," cried the larger man. "Of course, we wouldn't know how to manage such a thing ourselves. Now, if you'll say ten thousand dollars, Mr. Willer, we'll pay you two thirds of that, and you can let the other third go for your share. What do you say, Mr. Dobbs?"

"Oh, I guess it's all right; that is, if Mr. Willer don't think eight thousand would be enough?" looking at Floyd hopefully.

"I am willing to accept Mr. Green's first valuation of twelve thousand," Floyd replied after a few moments of deliberation, "and I believe there will be a generous profit for all of us at that price. I will see you again this afternoon, gentlemen, and arrange details."

An hour later he was on his way to the post-office, still dazed and bewildered. A carriage rolled past, and in answer to a bright glance of recognition he raised his hat mechanically. It was Miss Potter, the Judge's daughter, with whom he had been very friendly during their public-school days, but from whom he had drifted in these later years, when social isolation had meant so much more than it had to them when they were children.

When he came from the post-office he slipped several letters into his pocket and then opened the county paper. Almost the first paragraph was the one with the startling headlines:

"COMING HOME WITH TONS OF GOLD."

"Our esteemed fellow-citizen John Willer is about to return from Klondike with a ton or more of gold."

Floyd crumpled the paper contemptuously. That explained the whole wretched business. Five minutes later he was in the presence of Judge Potter.

"There has been a mistake," he began, grimly. "My uncle John is not—"

The Judge interrupted him blandly.

"You have been reading the paper, I see. Really, Floyd, I hope you don't credit me with being influenced by that paragraph?"

Floyd smiled satirically.

"I am afraid I do," he answered. "Anyhow, you must allow me to release—"

"Oh, tut, tut, boy! I shall not release you. An agreement is an agreement, even though the papers are not signed. You believe the line will be profitable, do you not?"

"Of course," indignantly.

"Then that is enough. Be here at three o'clock sharp. And, oh, there is another thing, Floyd. We are going to have a few

friends in this evening, and we wish you to join us. Mrs. Potter and Edith both desire it. Now, don't forget. Three o'clock this afternoon, and about eight this evening."

Floyd murmured something, and allowed the Judge to bow him from the room. How he found his way to the sidewalk he scarcely knew. This was something more stupendous, more incredible than all the rest. He could grasp the magnitude of a few thousand dollars, but an invitation to the inner circle of social life, into the very heart of the social fortress, as it were, it was incomprehensible.

But in spite of bewilderment he found his way to Lawyer Blake's office and to another indignant protest against the aspersion of being influenced by a vulgar newspaper report. And with the two storekeepers it was the same. At last he retired baffled, obliged to allow matters to take their course.

That afternoon he was formally made superintendent and general manager of the Lake Champlain Passenger and Transportation Company, and that evening he looked into Edith Potter's eyes and talked with her in her own drawing-room; and when at length he went away from the house it was with a visionary dream of his life beginning to assume tangible proportions.

For many months the good people of Oak Point Bluff looked for the coming of John Willer, with his tons of gold, but in vain. Perhaps Connecticut was his destination, after all; perhaps a merely indeterminate point somewhere in the East; perhaps the gold was too heavy for him to bring; but be all that as it may, long before they ceased to look for him Floyd Willer had won the Judge's daughter and was accounted one of the most prosperous men in all the north lake country.

### BETRAYAL

One day Love came to her; no virgin flame
Blazoned her cheek; for pride and maiden shame
Held o'er her heart's dear secret fast control,
And shuttered all the windows of her soul.
And no one guessed her happy hidden weakness,
Through lowered eyelids and pure front of meekness.

But once she sang, when Joy arose and wove
Into the strain a telltale Song of Love.
And all the little world around her smiled,
By memories of their own fair youth beguiled.
For in her happiness, as in a glass,
They saw their own loves delicately pass.

One day Love went, and none her anguish guessed;
For still she laughed and jested with the rest.
Her fair proud forehead faced the world about,
And every prying peeper put to rout.
Until she sang. Then sorrow burst his bounds,
And passion's chord broke off in jarring sounds.
All turned and gazed, drawn by a piteous crying,
And saw a broken heart, in her bared bosom, dying.

—L. R. Cantley, in Harper's.

# The Steel Horse and The Pale Horse

BY ADA E. FERRIS

"I CALL this the acquisition of useless knowledge under difficulty," Elma declared, gravely.

She was trying to teach her Cousin Bob to ride her bicycle, and found it no easy task. Not that Bob was more awkward than beginners in general, or less respectful to the instructions of his city cousin than the average boy of sixteen, but the ground was certainly unfavorable, to put it mildly. The only bit of level road anywhere around was this not overwide path between the house and the rude barn. A foot or two out of the way was apt to land the luckless rider among rough boulders or in a clump of thorny cactus. The very small garden around the house had a decided slope; behind the wooded mountain-side rose abruptly, before it fell away almost as sharply. The narrow road that connected this mountain eyrie with the lower world wound along the hillsides with many a cut and curve, steep ascent and descent. The pretty steel horse that had carried Elma so many miles over city pavements was utterly out of place here.

"If I had known what sort of a place you lived in I wouldn't have brought it," she said, surveying the steep hillsides and giant rocks on every hand.

"Might coast downhill to the depot," Bob suggested, wiping his hot forehead.

"Thanks, but I may have a use for my bones some day," she answered, drily. "Toppling over the side of a precipice a hundred feet or more isn't to my taste."

"Pooh, a good cycler could do it well enough. If I once get the hang of this thing I'll show you," spoke Bob, with his customary modesty. "If it wasn't a girl's wheel it wouldn't take long."

But his next attempt only resulted in sprawling over a pile of stones beside the path. The gray colt who stood watching them with his neck stretched out over the chaparral fence whinnied in disapproval. Bob got up laughing.

"Don't think much of a girl's wheel, do you, Duke? You're worth a hundred bicycles, aren't you? You don't land a fellow in the nearest clump of prickly pear or smash his head against a stone. When I want to get somewhere I'll take you—but all the same I mean to learn this thing or smash up trying."

"Oh, Elma," cried his sister Bessie, running out to them, field-glass in hand, "There's a fire just across the valley. The Joneses are burning off their hill-pasture. Come around and see it."

Elma followed at once, leaving Bob to continue his struggles alone. Bessie led the way around to the front of the house, where the whole magnificent prospect spread out before them. Their place was on a tiny spur of the mountain range that stretched away to right and left till it faded into distance. Before them and far below lay the wide, green valley dotted with live-oak groves and fruit orchards around comfortable farm-houses. Beyond it the mountains rose again, seeming in that clear air little more than a stone's throw away. Elma needed no field-glass to distinguish the cattle-trails up their ridges, or to trace the course of the railroad for miles, sometimes hidden by groves or hills or plunging through deep cuts, and again crossing long trestles or lying like a thread of shining steel along an artificial ledge on the mountain-side.

"It's a good time to get the hill burned over before it begins to rain," Bessie said. "And that canyon is so full of dead stuff that it makes a splendid blaze. I'm glad you have a chance to see a real mountain-fire."

"You think it won't do any damage?" Elma asked, nervously. She was so used to seeing a strong fire department make every effort to check the devouring monster, and this was already leaping up the ravine fiercely, with lurid tongues of flame showing through the great clouds of gray smoke.

"Why, it can't"—Bessie began, then checked herself. "Yes, it could if it once crossed the ridge to the northward and went up that other pass—but of course the boys have cleared the brush off the ridge so it couldn't. They wouldn't dare set the fire and not see to that."

"What would it do if they hadn't?" Elma asked, with some anxiety. "Why, Bessie, I actually hear it roaring clear across the valley. How far off is it?"

"Oh, I don't know exactly. Maybe two miles or more in a straight line. Why, if it crossed the ridge—but of course they wouldn't let it—it might run up that other slope and burn the railroad bridge."

"Would it be hot enough—yes, of course it would," Elma interrupted herself, shivering.

"I'm afraid so. There, it has reached the top of the ridge. Isn't it grand? But you ought to see a mountain-fire at night. Then it is as if all the mountains were living volcanoes. The dead chaparral and sage-brush burn like fat pine shavings, and the smoke is all aglow."

Elma could well believe it. She watched the fire as if fascinated for some moments, then said, slowly, "Bessie, I do believe the fire is crossing that ridge."

Bessie looked long and earnestly, then said, excitedly, "You are right. It is. Those horrid Jones boys are always so careless. Oh, I wish the rain would begin. If it doesn't—"

"The bridge will burn," Elma finished, shivering. "Can't they put it out?"

"Maybe—if they are quick enough," Bessie answered doubtfully.

Just beyond the ridge was a gentle descent of a rod or two. On this ground the fire might be checked, but beyond that it rose again, making a steep pass thickly grown with cariso-grass and sage-brush, and only a little way above the railroad skirting the mountain-side crossed this ravine on trestles.

A few moments told the tale. Evidently no one was there to seize the golden opportunity. The level was crossed and the fire rushed exultingly up the pass. It wrapped the railroad bridge in flame, and veiled the whole scene in great clouds of smoke. White ashes of dead leaves fell around the girls like flakes of snow. Then the bridge came into view again, for the fire had passed it rushing upward. It reached the summit of this second ridge, and then, unable to eat its way down the steep slope beyond, died away—and the bridge yet stood.

But Elma asked, slowly, after another long look through her glass, "Do you think it could stand the weight of a train now, Bess?" And Bessie did not venture to answer, but called her brother, who boldly gave the verdict.

"Course it won't. Don't you see those timbers are half burned off? And they're smouldering yet. First train that goes on there will carry the whole thing down ker-thump!"

"But it will look all right to the engineer till he is fairly on it," Bessie gasped. "Maybe not a soul but ourselves has seen it burn back there in the pass. We wouldn't if it wasn't straight across the valley, it's so shut in between ridges and trees. And the track-walker has been along once to-day—"

"Now, don't you worry," Bob interrupted, coolly. "You know there isn't a train due for hours yet, and I'll just saddle Duke and go down to the depot and report. Maybe they'll know before I get there, but that's all right. Anything I can get for you, Cousin Elma?"

"No. But you are sure there's time, Bob? It would be awful to have a train go down there."

"Course it would. But we aren't going to let it," Bob responded, cheerily. "You tell mother, Bess. I mustn't waste any time, because if it rains before I get back it won't be any fun climbing those grades."

"Well; but don't you get Duke stove up rushing him down those grades—if you are sure there's plenty of time," Bessie concluded, rather inconsistently.

A moment later Bob was clattering down the steep road at a pace that made Elma exclaim, shuddering, "He will surely be killed!"

"No, he won't. Duke knows the road. But he has gone without his overcoat, and he may be drenched before he gets back," Bessie fretted.

The sky was turning leaden above them, the mountain darkening on every side. The rainy night was closing in early. Elma shivered. Gray storm-clouds were eddying uncertainly around the peaks, the trees whispering together in alarmed fashion. "Let's go in," Bessie said, but lingered to watch Bob around another curve.

Suddenly, faint and far away, sounded a locomotive-whistle. The mountains caught up the sound and tossed it back and forth till it seemed as if three or four were whistling in as many directions. The girls looked at each other with paling faces. "A special!" Bessie gasped. "Bob was so sure he had plenty of time!"

Again came the whistle, quadrupled by the mountain echoes. Bob had heard it. They could see that he quickened his pace to a dangerous speed. But what could it avail? Bessie pointed to the engine-smoke already visible far down the valley.

"He can't begin to do it—though he'll kill Duke trying," she sobbed. "He thinks it may stop for water at the depot—but it won't, not long enough for him to get near. And the grades are so steep, and Duke is barefooted. If he once slips at that rate they'll both go rolling to the bottom and never know what hurt them. And a race-horse couldn't get there in time. The train will go down before our eyes, and the folks be smashed up and burned alive, maybe. And we can't do a thing."

Elma dropped her glass and sped across to where Bob had left her wheel. Half an hour ago all the gold in the state could not have tempted her to risk that terrible descent; but now, with Bob risking his life already on the road, she could only realize that this was the only possible chance to save the train, and must be tried.

Again that whistle sounded down the valley and re-echoed from the mountains; but Elma was on her wheel speeding down the first slope. She was a very fair cyclist on a level, though she had never attempted races or century runs. Mountain roads and daring coasts were almost a sealed book to her; but now there was no time to think of danger—only to reach the station in the least possible time.

The first grade was not so hard, the first turn comparatively easy; the second was like a breathless swoop through the air. Then a short level enabled her to regain control of her machine for the next corner. Another swift, breathless descent, a gentle rise up which her impetus carried her with unabated speed, then a long, curving grade cut along the mountain-side. One moment it flashed through the girl's mind as she flew along, totally unable now to check her steel horse, that the least mischance here would be fatal. To meet a team, to strike a stone, even, might toss her over the roadside, down, down through the waving tree-tops to the great cruel rocks in the bed of the stream below. But there was no time to think of anything beyond the urgent necessity of drawing her laboring breath and guiding her flying wheel.

The wind was roaring in her ears and her heart-beats seemed to choke her. It was all like a horrible phantasmagoria. Now she was flashing across a little bridge, and the trees below seemed stretching up to her with waving hands. Now she was rounding another curve—perilously close to the outer edge—and saw Bob far ahead, still pushing Duke at his utmost speed. Yet she closed upon him so fast he seemed to be standing still. She rang her bell furiously, knowing that a collision here might well be fatal to both. Bob, listening only to that fast-approaching whistle, did not hear; but Duke did, and shied violently to one side—and Elma passed like a flash.

She heard Bob shout out something, but the rushing wind deafened her. She could not hear what it was, nor dared she turn her head to see if he slackened his pace. Her eyes must be glued on the road that whirled beneath her. One instant's inattention or relaxing of her grip on the handle-bars and her steel horse would be utterly beyond control. Twice it struck stones and leaped and lurched as if longing to unseat her and fly away.

How dark it was growing! As if all the black clouds in the heavens were hurrying up to witness the catastrophe—or was it to watch her mad race? A race—and with what? Not with flesh and blood, but with a rider on a pale horse, whose soundless hoofs came swifter than the wind. Faster, faster, steed of steel!

Hark! Again that whistle echoes through the mountains. It is the iron horse shrieking an appeal to his brother the steel horse as he sees the pale horse closing in. For suddenly to the girl's swimming eyes and over-wrought nerves all nature seemed alive around her—the dark clouds rushing overhead, the trees waving their arms and hoarsely shouting encouragement or menace, and most of all the wheel she rode, which seemed flying on of its own wild volition, the grip of her icy fingers had become so mechanical. The very air seemed holding her back as with an icy hand—or was it the clutch of the terrible rider with whom she raced? What was it that froze her blood and dimmed her eyes and deafened her ears? She caught herself picturing a flashing bicycle with a dead girl sitting erect in the saddle springing on the track before a startling train, and wondering if the steel horse and the iron horse together could make the folks understand and prevent the catastrophe, after all.

Just one more sharp curve; an inner curve this time. If she dashed against that rock—it was past, but her sleeve was fluttering in ribbons. Now the station was just below her, and the special stood there, panting and ringing her bell, impatient to be off, only delaying for a man who still stood on the platform looking up at the mountain trail. "Never saw such a foolhardy coast in my life," he was saying, nervously. "A girl, too. Unless her brake has given out on the way she's either stark, staring mad—or for some reason she is desperately anxious to catch us. Wait just fifteen seconds more; here she comes!"

Only the heavy sand around the station made it possible for Elma to check the frightful velocity of her wheel. Everything seemed whirling and darkening around her, but she saw the men's wondering faces, and with a last supreme effort screamed, hoarsely, "The bridge—burned—will go down with you!" and then suddenly collapsed. Steel horse and rider lay prone on the sand.

Bob had halted on a projecting rock to watch as soon as he realized that his cousin had indeed passed him, and it was with intense relief that he saw her arrive safely and in time. Then he remounted and came on more leisurely, finding her, when he arrived, on a lounge under the care of the station-agent's wife.

"What on earth did you want to faint for?" was his rather impatient question. "My! I should call it just fun to whiz down like that! Only it puzzles me how you're going to get up again. Reckon you'll have to fall back on Duke, won't you? Say, did you think to time yourself?"

"'Time?'" Elma repeated, vaguely. "No; there wasn't time to think of it. It seemed like hours. Oh, I don't want to think of it. I can't realize that it's all over and nobody killed."

Bob left the room in disgust, and was heard inquiring of the station-agent why on earth a girl couldn't show a little bit of pluck without spoiling it all by going and fainting the minute it was done. To which the agent replied, gravely, "Your cousin doesn't look any too strong—and you may thank Heaven you don't have to take her back home in pieces."

And much to Bob's disappointment and surprise he could not induce her to mount her wheel again during her visit there. "I should think you would want to try the grade again some day and time yourself properly," he urged. "I shall if I ever get a wheel. It will be something to talk about."

But luckily Bob isn't able to afford a wheel yet.

### RISE OF CIVILIZATION IN EGYPT

Professor Flinders Petrie recently delivered the first of a series of three lectures on the "Rise of Civilization in Egypt" at the Royal Institution. Ten years ago, he observed, the title of the lecture would have seemed strange; we were then groping about for clues in the hieroglyphs and the few remains of what might have been conjectured to be prehistoric times. But the whole aspect of the subject has changed.

Until 1892 the whole of Upper Egypt was closed—at least to English work. But after that date British explorers found traces of Mycenaean civilization—then remains of the dynastic period; and at last we had come to the period of First and Second Dynasties. These years had been fruitful of results, covering the years from 4000 B.C. to 7000 B.C., and we might say our knowledge of early history in Egypt was now more exact than of the first ages of any other country in the world. The range covered the unparalleled period of nine thousand years. In a table on the screen Professor Petrie marked successive periods, giving 5800 B.C. as the date of the highest prehistoric civilization, and 7000 B.C. as the rise of that civilization. The pyramid-builders were about 3600 B.C. Another table, with appropriate curves, indicated the successive waves and variations of civilization.

The great importance of Egypt was that foreign influences were probably smaller than in any other country, though there were some early Babylonian influence and at a far later period that of the Mediterranean seaboard. On the whole, however, the civilization of this wonderful land was self-developed to an extraordinary extent. But in dealing with prehistoric times some points of reference—type specimens—standards and terminology were necessary. How could these be obtained in the absence of ascertained dates? There was no scale of time, and they must have a scale of sequence. For this a corpus of objects was needed, such as might, for example,

in the case of Greece and Rome, in the absence of dates be found in the extant coins. In Egypt the tombs and their contents were the means of attaining such scale and such a sequence of development. For such archaeological investigation no means were so fruitful as pottery. The lecturer showed by example the varieties of form and the growth of art and style in successive epochs. The continuity of historic form was known, and the presence of an alien form led to the reasonable inference of prehistoric character.

In pottery a scale of sequence had been worked out with tolerable exactness during the period hitherto regarded as mythical. Research had carried us as far back as 5000 B.C., when there was clearly an influx of new ideas. By degrees the successive periods of the tombs had been ascertained, the interval between each being, roughly speaking, a generation. There were, he believed, about nine hundred kinds of pottery whose vogue varied indefinitely.

Then the flints were another source of knowledge with their gradual modifications. The earliest flints were the best, and the changes of form might be traced from prehistoric times. The earliest metal forms and their successors were also illustrated. Then in slate the growth and improvement, followed by decay in workmanship, were shown by pictures of animals which ultimately became excessively formal and constrained. Except with metal the result attained was that art had reached its acme in prehistoric times and then began to degenerate.

Until the north of Africa had become considerably dried and the Nile lost its affluents civilization was out of the question. Until the mud deposits grew to great dimensions the valley of the river was a practically uninhabitable gorge. The period of the Nile deposits was about 8000 to 9000 B.C. We already knew the history until we worked back to about 5000 B.C., and there remained from two thousand to three thousand years. We ought to look, therefore, to some neighboring country as the source of Egyptian civilization. High up in the desert were found flints—some of them fifteen hundred feet above the Nile, in a region now barren.

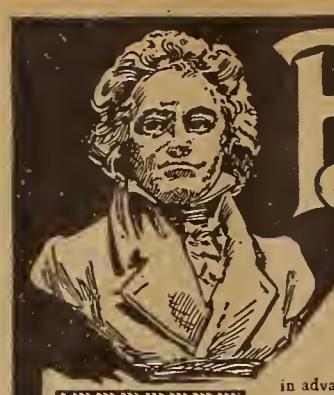
This was the evidence that the district was at one time inhabited and more or less fertile, and the erosion of large tracts of the country showed that the climate must have been a wet one. But he had also found these flints on the level of the present Nile, and this seemed to indicate the late survival in the country of paleolithic man. Then figures of colossal size of human and animal forms, cognate with what had been found in South Africa and elsewhere, were discovered, and a connection might be formed by means of these fragments of stone, and others of ivory between Malta, the south of France, and Egypt. The age to which these should be assigned was probably the paleolithic. These figures might be regarded as the last remains of the paleolithic period. In the whole prehistoric period there was no trace of the potter's wheel, and the variations of form were greater than was possible to the wheel-formed work. Of these many examples were vividly shown on the screen. There was much vigor in some of the representations, particularly of elephants, which were the work of the prehistoric period. The ivory combs, too, were singular and ingenious, and all belonged to the earlier period, the use of combs having apparently gradually passed away. These might be assigned to 6000 B.C.

The lecturer next touched on the marks on the pottery—some clearly connected with those of Crete and Libya, and which formed the basis of various alphabets. These signs might be traced during four thousand or five thousand years of Egyptian history, starting from 7000 B.C., as these signs appeared from the first. In Spain and Karia similar signs—forty or fifty of them—were found, and in the Mediterranean the number was about seventy. These signs were traceable throughout the whole history of the Mediterranean until by the growth of commerce and the need for common action a selection had to be made in the form of an alphabet. Thus the links which bound us with the dim past of Egyptian history were more palpable than was generally believed.—New York Sun.

### MAORIS IN NEW ZEALAND PARLIAMENT

The Maori party in the New Zealand House of Representatives contains but four native members, but it has great power in the Maori interests, which may be taken to show that its aspirations meet with a good deal of practical sympathy among the whites. The Maoris have been agitated lately for a certain measure of Home Rule, and it is another example of the practical Liberal spirit which obtains in New Zealand that they are to be given what they seek. A measure has now been introduced in parliament at Wellington embodying the modest claims of the natives in regard to the Maori lands, and no doubt it will, after sympathetic discussion, be placed upon the statute book of the great progressive colony. In New Zealand, at any rate, the natives do not need the missionaries to help them in their worldly affairs.—The London Chronicle.

IN PRAYER it is better to have a heart without words than words without a heart.—Bunyan.

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# INDEX TO FARM AND FIRESIDE

VOLUME XXIV.—October 1, 1900, to September 15, 1901

Articles are indexed by the number of the issue in which they appear. The volume begins with the first of October, and the issues are numbered regularly from 1 to 24. *Illustrated article

## Illustrated Specials


Agricultural experiment stations ... 10
American burro, the ... 16
Arid agriculture, story of 22
Chinese agriculture ... 4
Dairy-cow, the ... 15
Day in cotton-field ... 12
Draining swamp-lands of Illinois ... 21
Hunting for petroleum ... 19
Industrial work in the South ... 3
Most productive sugar plantation in the world 18
New golconda of oil ... 20
Opening Indian lands ... 17
Paris Exposition ... 5
Protected crops ... 23
Race of farmers, a ... 6
Reforestration in Colorado 2
Rice culture ... 24
Russia and its peasants ... 7
Russian characteristics ... 8
Tolstoy's farm ... 9
Transition stages of Western ranges ... 13
Yard of prize-winners ... 14
Western farmer as a business man ... 11


## With the Vanguard


Actual rural independence 16
Africa's future ... 2
Agricultural exports ... 6, 15
Aguinaldo's capture ... 15
America in the twentieth century ... 13
American farm labor ... 14
America's Chinese policy. 6
duty in China ... 1
Australia ... 9, 12
Beet-sugar industry ... 12
Break in prices ... 17
Business outlook ... 19
Can I make a farm pay? ... 12
Century of international commerce ... 5
Chalmers on American manufacturing ... 4
Cheese-making, discovery in ... 14
Clew's warning ... 15
Corn crops ... 21
Cotton exports to China. 3
trading ... 3
Creation of new wheats ... 17
Cuban policy, the ... 12
Cuba's future government 4
Danish butter ... 22
Department of Agriculture's good work ... 1
Egypt's earliest ages ... 9
Europe's attitude toward America ... 24
Exports of manufactures 3, 4
Farmers in the United States ... 12
Farm labor statistics ... 24
Food-preservatives ... 21
Forestry ... 10
Free rural delivery ... 7
Future of Anglo-Saxon race ... 8
of our commerce ... 13
Genuine agricultural fairs 21
Going back to the soil ... 9
Grout Bill ... 5, 8, 10
Hessian fly ... 4
Irrigation ... 6, 23
in Egypt ... 11
Isthmian canal ... 7
Koch on tuberculosis ... 22
Machinery and labor ... 19
Meat production ... 20
Ohio Experiment Station. 2
Oklahoma ... 2
New wheat-fields in old Asia ... 12
Porto Rico's trade with the United States ... 1
Population, urban and rural ... 24
Power of water ... 18
Progress of agriculture ... 3
Prosperity to continue ... 14
Railway combinations ... 9
Revolution in farming ... 20
Rice production in the United States ... 19
Roads ... 20
Roosevelt's Boston address ... 16
Russia ... 8
and China ... 2
Saunders, Wm., sketch of 1
Savings of the United States ... 4
Speculation ... 17
Supreme Court on insular tariff cases ... 18
Tammany Hall ... 3
Telephones ... 24
Thanksgiving proclamation ... 4
Trade in farm products ... 10
Tramps ... 10
Transformation work of the Dawes Commission 14
Traveling libraries ... 11
rural post-office ... 10
Upturn in stock-breeding. 19
Wealth by census of 1900 4
Wheat crop of 1900 ... 11
" " the world. 2
prospects ... 13
Wilson on food products. 23
Wood's description of Cuba ... 5
World's parched crops ... 23
Wu on Confucianism ... 7
" Lincoln ... 11


## THE ON-LOOKER


... 13, 14, 15, 16, 17 18, 19, 20, 21, 22, 23, 24


## Farm Notes


Acid fruits ... 17
Adulterated food stuffs ... 11
Advancement ... 7
American pomological society ... 17
Animal shows ... 17
Apples a paying crop ... 6
trade, the ... 3
Arbor-vitae ... 15
Autos for farmers ... 16
Baking-powders ... 9
Basket-willows ... 1
Beautifying farm homes ... 21
Bees and honey ... 23
Beet-sugar, American ... 4, 23
Belgian hares ... 1, 2, 6, *18
Boiled cider ... 6
Boys, birds and schools ... 24
Brick walks ... 15
Building site ... 1
California fruit interests. 10
Carbide refuse ... 15
Chemical fertilizers ... 2
Coffee substitutes ... 8
Colored butter ... 11
Colts ... 11
Comfort in home gardens* ... 9
Composts ... 20
Copper sulphate for weeds 13
Corn ... 23
planting ... 14
Counting the cost ... 19
Cow-peas ... 12, 23
Disease versus insects ... 15
Drills versus hills* ... 15
Drought doubles work ... 24
Early vegetables ... 11
English walnuts ... 7
Evergreen shelter belts ... 8
Fairs and side-shows ... 24
Family cow, the ... 21
Farmers friends ... 17
Fertilizers ... 6
for wheat ... 1
Fisheries exhibit ... 20
Floricultural exhibit ... 21
Fly pest ... 23
Foot-paths ... 6
Forage crop, the ... 12
Forestry ... 11
Fruit at Paris ... 7
" the Pan-American ... 7
growers' associations ... 13
outlook, the ... 22
Fuel ... 5
Gardening, fifty years of. 8
Garden-seed ... 11
German carp ... 22
Ginseng ... 2
Gooseberries, three* ... 22
Green food for swine ... 14
Growing fence-posts ... 4
Hedges and wind-breaks. 4
Hessian fly ... 23
Hired girls ... 19
man and tobacco ... 10
men ... 13
Home and lawn ... 20
Horns or no horns ... 23
Horticulture at the Pan-American ... 20
Improving the yards ... 15
Jail cure ... 13
Kansas agriculture ... 11
Keep on learning ... 7
Keiffer pear ... 10
King-bird, the ... 9
Lift the mortgage ... 6
Make every stroke count. 18
Milk-can incendiarism ... 3
Mission of American fruits 7
Nurserymen and fruit-growers ... 11
Oats ... 23
Osage orange ... 5
Pan-American Exposition. ... 1, 5, 8, 16, 18, 19
Pasturing the orchard ... 10
Pessimistic prophets ... 10
Planting for birds ... 16
Poultry food ... 3
house ... 4
Poverty cuff, a ... 15
Preparing corn stubble for wheat ... 3
Preserving fruits in lime 6
Production of wheat ... 5
Profitable farm-work ... 17
Protection for birds ... 16
Quick effects in planting. 5
growth of grasses ... 20
Rabbit-trap* ... 10
Record of progress ... 14
Reliable advertisers ... 14
Reservoir ... 23
Riding implements ... 3
Roads ... 6, 16
Roots versus water ... 6
Run-down farm problem ... 9
Rural free delivery ... 16
Saccharate-of-copper spray 16
San Jose scale ... 12, 13, 19
Sawdust mulch ... 1
Seed corn ... 7
that never grow ... 14
Soy-beans ... 12
Spirea* ... 21
Standard seed-corn ... 2
Starting plants ... 11
Sweet corn, rye, clover and sorghum ... 22
peas ... 9
Taylor, F. W.* ... 20
Tenants and landlords ... 1
Timothy ... 5
Top-dressing grass-lands ... 6
Tulips ... 3
Unfermented grape-juice ... 20
Vinegar ... 3
Wheat for fowls ... 3
Whitewash ... 20
Who does the milking ... 12
Winter eggs ... 4
Working forty acres ... 14


## Farm


Agricultural news and notes ... 20
outlook ... 1
versus street fairs ... 23
Alfalfa ... 11
and Squash for hogs ... 22
in New Jersey ... 7
American dairy products in Europe ... 3
Angora goats ... 4, 17
Another chance ... 12
Arbitration, practical ... 10
Artichokes ... 11
Basket-willows ... 7
Bean culture* ... 18
Beardless barley ... 11
Belgian hares, wild rabbits, woodchucks ... 17
Better tillage ... 10
Bird friends ... 14
Birds ... 2, 4
help farmers ... 12
Blind-bridle ... 1
Boy's patrimony, the ... 6
British mutton ... 5
Broad meaning of "Jersey" ... 6
Broom-corn ... 15
Brown Swiss cow* ... 17
Buffalo-grass hay ... 11
Butter increasers ... 7
prize ... 11
Butting against high prices ... 6
Buying less food ... 7
milk-cows ... 14
Canada peas and cow-peas 8
Can we get a living? ... 13
Caprified figs ... 8
Care of ewes at weaning-time ... 13
Caring for stover ... 2
Cash capital ... 10
Cattle trade in Kansas, the ... 6
Charm of a name ... 24
Cheap creamery ... 6
flooring ... 12
Chopping wood ... 21
Close attention to business ... 3
observation pays ... 5
Clover hay in a wet season ... 17
seed ... 15
Colorado's wheat yield ... 7
Colts ... 14
Conveniences for farmers* ... 12
Corn crib* ... 10
crop beginning to move. 5
culture ... 9
plant secret ... 16
" to the acre ... 19
Cow-pea hay ... 17
Crimson clover ... 9
Crop after corn, the ... 9
Cutting and crushing stalks ... 4
Dairy barn* ... 16
cows ... 12
men's association ... 8
Dehorning calves ... 11, 14
Delaine Merino sheep ... 9
Details in farm-work ... 18
Draining hillsides ... 19
swamps ... 7
Driver, the ... 22
Drought after wet weather ... 20
Early lambs ... 14
Elders, how we killed the 24
Emery-stone, an ... 18
Experiment stations ... 2
Fable, a ... 9
Failure on farm and in city ... 21
Fall plowing ... 5, 24
Farm cream-separators. 14, 16
fireside in winter ... 5
garden, the ... 6
girl, the ... 21
small and large ... 10
Farmers and speculation. 18
" the library, the ... 19
great needs ... 4
institute question-box ... 13
living, the ... 13
Farming on good and worn-out land ... 13
Feeding apples to stock ... 3
cattle ... 11
Feed the cow's appetite, not her size ... 12
Fertilizers ... 8
buying ... 14
for wheat ... 21
Floods and washouts, to avoid ... 23
Fodder-corn ... 3
Food value of clover ... 17
Form of silo ... 22
Fruit test, the ... 17
Good neighbor, a ... 21
rule, a ... 18
Government seed distribution ... 12
Grain ration for cows ... 7
weevil ... 5
Harness, the ... 22
Harrowing on horseback ... 13
Harrows ... 12
Hessian fly ... 24
High-priced feed ... 2
Hog-trough* ... 20
Honey ... 24
bees in a lawsuit ... 10
Horticultural society ... 14, 15
How Sam succeeded ... 10
Improved silos ... 17
Improvement of the herd. 6
Industrial training school in the South ... 2
Influenza of cattle and sheep ... 3
Inverted sod ... 24
Irrigation for the East ... 6
limit of ... 6
Items from note-book ... 22
Johnson grass ... 11
Kafir-corn ... 9
Keg nests ... 18
Killing perennials ... 23
Land-drainage ... 3
Lawns and pastures, seeding ... 12
Leaving the ground bare. 7
Lice on young animals ... 12
Limestone soils ... 11
Loud call for the best men 5
Makeshifts ... 18
Man and the farm ... 11
with the shears ... 15
Manure, farm ... 4
question, the ... 6, 11
Market-gardening, profitable* ... 4
Melon culture ... 12
Method of seeding ... 9
Milk-dairy that pays ... 3
Misleading estimates ... 9
Model family, a ... 3
trough ... 18
Moles ... 19
Mortgage-lifters ... 1
Moth-traps ... 17
Mulching-drag* ... 21
Nature-studies ... 3
Neglect of details ... 10
Neighborliness on the farm ... 2
New century farmer ... 7
class of farmers ... 3
Nitrate of soda ... 9
Oats as a cover crop ... 11
crop, the ... 9
Ohio dairy-school ... 14
Old house made new ... 11
Oleomargarine ... 9
Orange crops ... 5
Organic acids ... 16
Osage orange ... 8, 9
Our country roads ... 5
Partnership ... 12
Pasture for hogs ... 20
" horses ... 13
Peas in the North ... 13
Phosphates ... 16
Picketing horses* ... 7
Plan for hog-pasture* ... 14
Poison-ivy* ... 1
Potato culls ... 5
experience ... 13
growing ... 7
late ... 4
scab ... 15
Practical experiment, a ... 16
suggestions ... 17
Profits for stockman ... 4
Pure-breds ... 9
Puzzled the German ... 6
Puzzling questions ... 3
Quality in potatoes ... 21
Races of corn, the ... 8
Reaper trial ... 17
Renewing old pastures ... 23
Renting ... 1
Restoring oat yields ... 14
Rice culture ... 5, 9
Rich man, a ... 4
soil for truck ... 4
Roller of mowing machine wheels ... 1
San Jose scale ... 4
Saving the corn crop ... 20
Seeding clover in midsummer ... 19
to grass ... 24
Seed-potatoes ... 2, 13
Selling feeding stuffs ... 21
Shade-trees ... 2
Shaky seed contract ... 2
Shipping-crates* ... 12
Shortborn information ... 22
Silage ... 19
Silo, cheap ... 7
Skim-milk calves ... 18
Smut in oats ... 11
Soil fertility ... 10
moisture needed for clover ... 13
stimulants ... 8
Some station experiments 20
Sound thinking in the country ... 22
Spanish Marino sheep ... 8
Spraying fruit-bloom ... 14
Stable ventilation ... 6
Standard goods ... 18
Start in breeding, a ... 4
Strengthening the straw ... 14
Sumatra tobacco in Connecticut ... 9
Supplies ... 18
Swamp-muck ... 8
Sweet-potato culture ... 10
Testing theories ... 3
Think for yourself ... 7
Thinning potatoes ... 19
Tillage ... 24
Traveling sheep-pen ... 7
Turkestan alfalfa ... 1
Turnips ... 20
Unfortunate horse, the ... 22
Valuable ounce, a ... 1
Veal calves ... 15
Yolk in wool ... 12
Young men for the farm ... 20
Water for the team ... 22
Way out, the ... 10
Weeders ... 10, 12
What result to the soil ... 11
the farmer can afford to do ... 22
Wheat culture ... 24
" and Hessian fly ... 23
fields ... 15
White grubs ... 5
Wire fences ... 19
stretcher* ... 19
With a purpose ... 13


## GARDEN


Apples, selling ... 3
Asparagus plants, resetting ... 3
rust ... 2
Banana apple, the ... 6
Beautifying farm homes ... 24
Beans in sod ... 17
Bees and honey ... 21
Berry-plants from seed ... 15
Birds ... 12
Burbank's new creations. 9
By-products ... 5
Cabbage cracking ... 23
early ... 9
seed, growing ... 21
Carman No. 3 potato ... 5
Catalogues, seed ... 10, 11, 14
Celery going to seed ... 20
wintering ... 5
Charcoal ashes ... 5
Chestnuts ... 5
Combination crop, a ... 4, 16
Corn and buckwheat ... 19
Cow-pea hay ... 24
Crimson clover ... 21
Currant supply ... 4
Dairy equipments ... 24
Dill-pickles ... 13, 18
Diseases of chickens ... 6
Early garden, the ... 16
Earthworms eating celery 8
Egg-plant crop, the ... 3
English sparrow ... 19
Exhibitions tomatoes ... 7
Frost ... 8
Gibraltar onion ... 4, 5
Gooseberry, new ... 2
Government seed ... 18
Grasshopper disease germs ... 18
Hen manure for the garden ... 15
Hired help ... 2
Honor Bright tomato ... 20
Horse-radish ... 17
Hubbard squash ... 15
Jadoo fiber ... 10
Late planting ... 22, 23
Lettuce, forcing ... 8
Lima-beans ... 3
Mangles for stock ... 16
Mango, the* ... 22
Mildew on peas ... 19
Milk for money ... 6
Mushroom-spawn ... 1
Muskmelon, strawberry ... 9
Novelties ... 8
Onions at the South ... 1
from seeds or sets ... 1
Onions in Florida ... 5
queries ... 17
Outlook, the ... 2, 13
Peach culture ... 9
Peanuts at the North ... 3
Petroleum spray ... 17
Pineapple strawberries ... 24
Potato beetle ... 18
early ... 15
onions ... 6
scab ... 1
seed ... 5
varieties from grafting. 18
Preserving fruits in lime. 9
Promising crops ... 2
Rot of plums and cherries 23
San Jose scale ... 8
School gardens ... 4
Seed-growing ... 22
Shipping-tomato, a ... 7
Sods for compost ... 1
Soy-beans ... 24
Strawberries, fall-bearing. 6
Strawberry-patch, the ... 4, 22
Success in the garden ... 10
Summer lettuces ... 22
Sunflowers and Lima-beans ... 19
Tankage as manure ... 13
Tomato disease ... 19
early ... 7, 20
varieties ... 7
Varieties ... 16
Vegetables for short seasons ... 17
fresh and stale ... 15
Wasted efforts ... 20
Wax-beans ... 9
Weeds among strawberries ... 2
Weedy morning-glories ... 3
Wheel-hoes ... 10
Wiuningstadt cabbage ... 13


## ORCHARD


Banana apple, the ... 6
Birds ... 7
California fruit culture ... 7
Cleft-grafting* ... 13
Essentials of a perfect apple ... 7
European methods of training trees* ... 10
Fertilizers for fruit-trees 7
Forest-trees, replanting ... 3
Grafting ... 11
Grapes in the Northwest 1
Golden apples, two ... 8
Mango, the* ... 22
Peach culture ... 9
West India hurricane ... 3


## CORRESPONDENCE


Arkansas ... 1, 11
California ... 2, 8, 17
Colorado ... 7, 16
Florida ... 11, 24
Kansas ... 8, 11, 16, 19
Michigan ... 9, 16
Mississippi ... 14
Missouri ... 16, 18
Nebraska ... 8
New York ... 14
Oklahoma ... 16
Oregon ... 2, 8
Pennsylvania ... 18
South Dakota ... 14, 24
Tennessee ... 2, 16, 17
Texas ... 6, 11, 19, 24
Washington ... 13
West Virginia ... 1


## POULTRY


Animal-meal ... 6
Bad management ... 6
Barn cellars ... 22
Beginning with large numbers ... 23
Belgian hares and poultry 4
Better stock on farms ... 5
Black Langshans ... 13
Bone and bone-cutters ... 15
gravel and shells ... 2
Brown Leghorns ... 23
Brooder-chicks ... 18
Buying birds and eggs ... 16
Cement floors ... 20
Charcoal for poultry ... 24
Chicks from pullets ... 24
in brooders ... 1
of different ages ... 16
Choice poultry ... 19
Cholera ... 19
Color of egg-shells ... 19
" plumage ... 6
Confinement and exercise 7
Crimson clover for poultry ... 22
Crop-bound ... 24
fowls ... 22
Cull the flock ... 17
Cut bone ... 9
Diphtheria ... 8
Disinfection and disease ... 9
Drafts and ventilation ... 10
Ducklings and chicks in market ... 19
Ducks ... 1, 3, 16
Dusting material ... 17
Early chicks ... 4, 8
hatched pullets ... 10
laying pullets ... 3
spring operations ... 12
Eggs and food ... 21
eating ... 16
for hatching ... 3
materials ... 13
Enlarged liver ... 15
Fat fowls and egg production ... 19
Fattening broilers ... 9
Feeding and laying ... 18
mixture ... 5
oats ... 6
Fences and flyers ... 10
Flavor of eggs ... 16
Food and its digestibility. 23
for young chicks ... 3
Fowls in yards ... 20
Fresh eggs and markets ... 21
Gapes ... 1, 17
Geese and ducks ... 13
Green foods ... 2
" and bones ... 1
Growing the food ... 17
Guarding against disease. 10
Guineas as bug-catchers. 6, 19
Hamburgs ... 3
Hens and broods ... 18
as brooders ... 13
not laying ... 15
old ... 24
High flyers ... 17
Hints on management ... 12
Imported eggs ... 1
Improved flocks ... 1
roosts ... 5
Improvement of breeds ... 4
Inbreeding and disease ... 3
Incubators ... 5, 16
and brooders ... 9
Milk for poultry ... 3
Indications of thrift ... 21
Keep accounts ... 19
Lameness ... 15
Large numbers ... 8, 20
Laying and market fowls. 3
Lice ... 14, 15, 17, 20
Lime and egg-shells ... 6
Management ... 7
Marketing inferior birds. 22
Millet-seed ... 20
Mineral elements, the ... 16
Movable poultry-house ... 13
Names of breeds ... 8
Nest-boxes ... 16
Nitrogenous foods ... 3
No hens allowed ... 14
Non-sitters ... 4
Oats in summer ... 20
Operating an incubator ... 2
Overfat hens ... 6
Packing eggs ... 21
Place for the hens ... 6
Pit games for the table ... 10
Plymouth Rocks ... 8
Poultry crop, the ... 2
earnings ... 14
house ... 19
" in summer ... 17
" management ... 8
in California ... 11
keeping for women ... 9
Preventing sitting ... 12
Prices for pure breeds ... 4
Progress in poultry-keeping ... 6
Pullets and hens ... 8, 22
Purchasing pure breeds ... 7
Quality in the flock ... 9
Range and yard ... 5
free ... 15
Red combs ... 10
Reducing expenses ... 14
Root crops for poultry ... 22
Saving eggs for hatching. 11
Scalded oats ... 3
Scaly-leg ... 16, 20, 23
Scientific feeding ... 2
Selecting eggs for hatching ... 12
Small farms and poultry. 4
Shells for grit ... 19
Sitters ... 2
Sittings-hens and chicks. 16
Shows ... 3
Spring work ... 14
Success with poultry ... 10
Sudden deaths ... 15
Sulphur, burning ... 22
Summer feeding ... 18
Tonics and stimulants ... 19
Too much food ... 11
Turkeys ... 15
feathers ... 5
Varied foods ... 19
Variety in feeding ... 4
Walls and floors ... 6
Warming the poultry-house ... 3, 5, 11
Wasting eggs ... 14
When to buy fowls ... 24
White on Langshans ... 2
Winter diseases ... 5
and summer feeding ... 14
Yard room ... 19
Year's profit ... 15


## Queries

### GENERAL


Addresses of swine-breeders ... 19
Alfalfa ... 8, 14
Turkestan ... 7
Angora goats ... 22
Ants, to get rid of ... 14
Ashes as fertilizers ... 7
Bacon, sugar-cured ... 21
Brown Swiss cattle ... 19
Cabbage-worms ... 21
Canada thistles ... 16
Cement reservoir ... 22
Changing pasture to clover meadow ... 12
Cheese-making at home ... 23
Chinch bugs ... 22
Churns ... 2
Cistern in clay soil ... 1
Clover in corn, sowing ... 18
seed, old ... 9
Corned beef ... 7, 9, 23
Cucumbers ... 24
Curing side pork ... 2
Dairy rations ... 8
Fleas in the house ... 21
Fly-repeller ... 22
Green lice on plants ... 21
Haul manure as it is made 4
Hay-presses ... 4
Hay substitutes ... 2
Hedge fence, to kill ... 1
Hose for garden irrigation ... 10
Ice, keeping ... 4, 21
Improving an old pasture 12
Ivy-poising ... 2
Japan clover ... 14
Kalsomine ... 19
Land-roller ... 8
Melon enemy ... 22
fertilizer ... 16
Milkweed, to eradicate ... 1
Mold in cellar ... 4
Morning-glory ... 22
Mulching dry soil ... 22
National road ... 21
Octagon barn ... 8
Peanuts ... 12
Peas and vetches ... 14
Poultry droppings ... 11
Power for pumping ... 18
Preserving posts ... 8
Prickly lettuce ... 2, 19
Purifying water ... 20
Rape for fall pasture ... 22
Red spider on roses ... 19
Sauces ... 22
Saving blue-grass seed ... 20
Sorghum fodder ... 8
syrup ... 18
Spruce-log water-pipe ... 2
Stable floor ... 8
Stone drains ... 18
Stove-blacking ... 9
Sunflower-seed ... 19

Tanning skins..... 11
Weevil in peas..... 24
" wheat ..... 2
Wheat, feeding..... 22
Why sorghum kills cattle 7
Wireworms ..... 22
Worms in dried fruit..... 24
Worms in furniture..... 18


VETERINARY QUERIES


Abcess ..... 21
Abnormal milk..... 11
Abortion .....1, 14
Actinomycom and milk.. 11
Actinomoycosis.....1, 8, 15
Age of mule..... 19
Anasarca ..... 21
Ascarides ..... 6
Anthrax .....10, 21
Bad breath..... 18
milk .....11, 12
Barrenness ..... 3
Bitter milk..... 12
Belgian hares..... 4
Blind buck..... 13
Blood-poisoning ..... 16
Bloody urine.....8, 20
Brand, wants to remove.. 24
Breeding mares out of season ..... 24
Broken hip..... 9
Caked udder..... 3
Callous growth..... 22
Cannot swallow rough food ..... 13
Capped elbow..... 7
Carditis ..... 24
Castrating calves..... 15
Catarrh ..... 18
Cellulitis ..... 21
Champignon ..... 4
or swine-plague..... 12
Choked ..... 17
Claudestinely with foal.. 3
Colic.....12, 15, 18, 20
Condition powders.....3, 15
Cough.....4, 6, 22, 24
and nasal discharge.... 10
Cow irritated by flies.... 22
milks herself..... 19
pox ..... 12
Crooked legs..... 3
Curb ..... 11
Decreased yield of milk.. 3
Diarrhea.....7, 8, 12, 23
Did not go dry..... 16
Difficult urination..... 14
Diseased eye..... 9
hares ..... 13
hock-joint ..... 1
sheep ..... 10
team ..... 1
Disinfectants ..... 12
Distemper ..... 2
Disturbed digestion..... 2
Diverticle ..... 17
Does not perspire..... 22
Dry sores..... 2
Dysentery .....8, 14
Elephantiasis ..... 6
Epilepsy ..... 16
Farcy ..... 12
Fistula.....2, 11, 12
Fleas ..... 11
Food for a young calf.... 4
Foot disease..... 2
Foreign-body pneumonia.. 16
Founder...4, 9, 11, 15, 16, 22
Fracture .....9, 10
Galled shoulder..... 22
Garget.....7, 15, 18
Glanders ..... 6
Gonitis ..... 4
Grease-heel ..... 16
Grubs ..... 19
Hard to milk.....9, 16
Heaves.....11, 15, 24
Hemoglobinemia ..... 23
Hernia.....4, 19, 21
Hidebound ..... 19
Hollow horn..... 21
Horny scar.....12, 15
Horses and cattle in same barn ..... 15
Impaction of third stomach .....10, 24
Incontinence of milk..... 20
" urine ... 17
Indigestion ..... 23
Injured at parturition.... 8
Itching ..... 8
Keratitis ..... 3
Kicked ..... 4
Killing a cow..... 3
Knees bending forward.. 18
Lameness ..... 6
Lampas ..... 20
Large joints..... 12
Lice.....4, 10, 11, 12
Lumps .....12, 17
Lung trouble..... 17
worms ..... 21
Luxation of patella....16, 21
Mange.....8, 9, 11, 20
Medical books..... 11
Milk fistula..... 12
thickens ..... 20
Milking-tubes ..... 3
Morbid growth..... 15
Nail in the foot..... 1
Nasal discharge....2, 4, 6, 23
Navicular Disease.....5, 12
Obstructed teat..... 18
Opacity of the cornea.... 14
Opening in cow's teat.... 7
Ophthalmia.....2, 6, 15, 16
Overworked ..... 9
Paper-skin.....1, 3, 24
Paralysis .....6, 13, 23, 24
Paralyzed hound..... 6
Paraplegia .....8, 15
Pastern catches..... 20
Peculiar death..... 7
Pericarditis and dropsy.. 9
Periostitis ..... 3
Pink-eye ..... 6
Prematurely with calf.... 23
Premature milk production ..... 15
Prolapsus of rectum..... 11
" vagina ..... 9
Puerperal paralysis..... 8
Pumiced hoofs.....12, 13
Quicksilver-poisoning .... 12
Rabbits ..... 1
Rachitis ..... 10
Rattail ..... 11
Rattlesnake bite..... 21
Red sediment in milk.... 11
water ..... 7
Renewing hair..... 1
Respiration obstruction... 12
Retention of afterbirth.3, 12
Ring-bone .....5, 15
Ringworm .....9, 15
Roarer, a..... 16
Scabs .....6, 13
Scours ..... 16
Scratches ..... 19
Screw-worms .....19, 21
Sequence of worm disease ..... 17
Sheep require water..... 14
Shrunken behind hip..... 22
muscles ..... 3
Sick horses..... 20
Sick pigs..... 21
Side-bones ..... 12
Skin disease.....3, 6
Smut ..... 1
Sore ..... 4
feet ..... 4
knee ..... 8
udder ..... 8
Sow eats chickens..... 4
Spanish itch..... 3
Spavin ..... 5
Splints ..... 10
Spoiled udder..... 21
Starved to death..... 9
Stiff neck..... 4
Stomach-worms ..... 3
Stomatitis .....13, 17
Sudden death..... 16
Sulphur, about..... 11
Swelled face..... 7
in parotid region..... 21
jaw .....8, 9
legs.....3, 4, 6, 15
Shelling, hard..... 16
Swine-plague ..... 3
Tapeworms ..... 6
Thin, remains..... 1
Throws up food through nose ..... 6
Ticks ..... 4
Torticollis ..... 15
Trots dog-fashion..... 2
Tuberculosis .....6, 13
Tumor ..... 6
Two possibilities..... 1
Ulcers ..... 23
Urachus not closed..... 15
Vertigo ..... 21
Vomiting pigs..... 14
Want of appetite..... 19
Warbles ..... 11
Warts.....3, 4, 6, 11, 13, 17
Weak eyes..... 7
Weakness .....2, 14
Will lose a hoof..... 16
Wolf's-teeth ..... 19
Worms .....4, 12


ORCHARD QUERIES


Althea seedlings..... 2
Ammoniacal solution of copper ..... 18
Ants ..... 20
Aphides .....6, 14
Apple seedlings..... 12
trees ..... 4
Ash and pine seedlings... 6
seedlings ..... 24
Azaleas and rhododendrous ..... 23
culture ..... 14
Barrenness of fruit-trees. 18
Best early peas..... 19
fruits ..... 12
Blackberries ..... 19
culture ..... 2
planting ..... 3
Black currants..... 2
Blueberries ..... 23
Bismarck apple..... 14
Bitter-rot ..... 23
Book on fruit growing... 10
" willows ..... 11
Borers .....4, 15
Buckthorn ..... 4
Budding and grafting.... 8
peaches ..... 20
Cabbage-worm ..... 17
Care of lawn..... 21
Carolina poplars.....2, 20
Cedar seedlings..... 11
Cherry leaf slug..... 17
trees from sprouts..... 12
" not fruiting..... 21
Chestnut-trees ..... 15
Chinkapin and chestnut .....6, 8
Clover in the orchard..... 3
Coreless apples..... 19
Cranberry culture..... 17
Crown gall..... 17
grafting ..... 15
Currant cuttings..... 20
saw-fly ..... 17
Dewberry ..... 12
Diseased cherry-trees..... 20
Drying prunes..... 3
Eradicating old hedges.. 16
Evergreen trees..... 15
Fertilizing fruit-trees.... 4
Figs ..... 8
Fire-blight ..... 21
Flowers without petals.. 19
Formalin ..... 12
Fruit from seedling trees. 2
Galls on oaks*..... 9
Goldthread ..... 6
Gooseberries not bearing. 19
Grafting pear on crab.... 24
the peach.....15, 19
Grape ..... 23
culture ..... 16
cuttings ..... 8
hardy ..... 2
rot ..... 14
vine layers*..... 9
Guava ..... 18
Gum on trees.....5, 21
Hardiness of plants....22, 24
Hedges in the city..... 14
Infected twigs..... 12
Injured plants..... 21
Japan quince..... 4
Jaueberries ..... 23
Katydid eggs..... 18
Kerosene emulsion..... 13
Lawn trees..... 15
Leaf-crumpler ..... 5
miner ..... 24
Lindens ..... 4
Locust seedlings..... 12
seeds ..... 8
sprouts ..... 24
Lycopodium ..... 17
Magnolia ..... 2
Manual for grape-growers 2
Maple-leaves, injured..... 2
Moss in lawn..... 21
Mulberries ..... 13
Mulching and pruning currants and gooseberries ..... 23
fruit-trees ..... 10
Nitrate of soda..... 4
Novelties, introducing.... 22
Nut-bearing trees..... 14
Orange bloom..... 9
rust ..... 19
Orchard crop, an..... 14
Ornamental vine..... 12
weeping trees..... 11
Osage orange.....
.. 12, 13, 14, 18, 20, 22, 24
Oyster-shell bark-louse... .....2, 4, 16, 18
Paris green and London purple ..... 12
Peach aphis.....16, 19
dropping ..... 12
leaf curl..... 18
orchard location..... 8
pits, stratifying..... 3
yellows ..... 18
Pear blight..... 14
trees dying..... 14
Pecan culture..... 5
Plant lice ..... 20
" on cherry-trees. 21
Plum and cherry seedlings 8
aphis ..... 20
for Kansas..... 13
rot .....15, 16
tree not fruiting..... 12
Pruning.....3, 8, 10, 13, 21
old grape-vines.....5, 15
small fruits..... 15
Rabbits and borers..... 1
Raspberries ..... 13
planting ..... 3
second crop..... 1
species ..... 18
Red cedar for posts..... 11
rust ..... 16
Rose-bugs ..... 18
Salt around fruit-trees... 14
San Jose scale.....4, 5, 16
Scale-insects ..... 16
Shade-trees ..... 12
Shot-hole fungus..... 24
Small fruits, setting out.. 1
Soil washing..... 12
Spacing fruit-trees..... 2
Squash-bug ..... 18
Staminate grape..... 19
Strawberry culture.....5, 21
fall-planting .....1, 2
plants, pruning..... 9
Sun-scald ..... 3
Transplanting large fruit-trees ..... 16
Trees near spring..... 5
Twig-blight ..... 23
Unthrifty cherry-trees.... 16
Water-cored apples..... 2
Weed for name..... 6
Wild Goose plums dropping ..... 17
Woolly-aphis ..... 14


POULTRY QUERIES


Asiatic breeds..... 4
Bantams ..... 4
Black Spanish..... 12
Blindness ..... 9
in chicks..... 20
Breeding-flocks ..... 6
Broilers on small lots.... 23
Cement floors..... 2
Chicks dying.....16, 20
Cholera ..... 22
Clots of blood in eggs.... 14
Clover .....8, 22
Crop-bound ..... 17
Crossing breeds..... 6
Langshans ..... 13
Cow-peas for poultry..... 7
Discarding grains..... 22
Disease of chicks..... 23
Ducks dying..... 10
Dysentary in chicks..... 17
Early pullets..... 19
Egg eating hens..... 13
for hatching..... 13
Embden geese..... 12
Enlarged liver.....12, 16
Feather-pulling.....4, 5, 19
Feeding and management. 3
chicks ..... 21
geese in summer..... 24
Fowls too fat..... 16
Geese ..... 9
lame ..... 2
Goslings ..... 18
Greasing chicks..... 1
Ground grain..... 11
Hatching and feeding.... 13
goose-eggs ..... 8
Leghorns ..... 12
Hens not laying..... 15
Incubator, making an.... 8
not hatching..... 22
Keeping eggs..... 14
Lameness ..... 15
Large eggs..... 6
Layers and brooders..... 11
Loss of locomotion..... 21
Leghorns .....18, 22
Lice ..... 21
Limber neck.....21, 24
Marking chicks..... 13
Meat for poultry..... 5
Millet-seed.....1, 17, 19
Number of males..... 14
Overfeeding ..... 9
and heat..... 23
Pekin ducks..... 16
Pigeons ..... 18
Poultry-house schools.....
.....7, 12, 19
Plymouth Rocks.....1, 4
Prices of broilers..... 6
Red Caps..... 11
Rose-comb Plymouth Rocks ..... 10
Roup .....18, 23
Scabby-leg .....13, 20
Selecting eggs..... 12
Sitters ..... 3
Small eggs..... 15
Sore ..... 10
comb ..... 16
head ..... 24
mouths ..... 14
Staggers in chicks..... 23
" turkeys ..... 24
Sulphuring meat..... 8
Swollen eyes.....5, 7, 11
Temperature for incubators ..... 11
Turkeys.....2, 9, 12, 13, 17
Two eggs a day..... 20
Warts on chicks..... 2
White Minorcas..... 13
Wyandottes ..... 18
Wyandottes ..... 1


Grange


Agricultural colleges..... 18
Annual meetings..... 4
Arbor Day..... 13
August topic..... 21
Autumn evenings..... 4
Better schools..... 1
Big names for plants..... 12
Books we read..... 23
good ..... 6
Brieflets ..... 20
Care of books..... 19
Character-building ..... 16
Children's day..... 16
City versus country banks 12
Correspondents, grange... 10
Country homes..... 10
Crouse, Mrs. Lizzie..... 21
Dairy contracts..... 9
Department of superintendence ..... 18
Dress ..... 4
Educational association. proceedings ..... 9
platform ..... 24
Election of senators..... 21
Ellis, S. H..... 3
Expressions ..... 11
Farmers as legislators... 17
Farm labor..... 5
labor problems.....2, 14
Fighting farmer, the..... 9
Flower and vegetable exhibits ..... 13
Fresh-air work..... 24
Good business hints..... 14
letter, a..... 1
road campaign..... 15
Grange ..... 16
extension ..... 17
libraries ..... 12
library, the..... 17
soil ..... 16
Granges organized and reorganized ..... 22
Grout hill..... 8
Growth of the grange.... 15
Headquarters at Buffalo. 20
Helpful words..... 17
Influence of the grange... 18
Inquiries ..... 21
Intellectual culture..... 22
"I Said" and the others.. 12
Jones, Hon. Aaron*..... 19
Keeping up with the times 21
Labor problem.....10, 15
Lecturer's topic..... 19
Lecturer, the grange..... 2
Literature for granges.... 11
National grange.....6, 7
Nature-studies...7, 10, 19, 20
New century hope..... 7
New leaf, a..... 4
No demand for agricultural books..... 8
Ohio Experiment Station. 8
State Grange meeting.. 8
Opportunities ..... 14
Organizing a grange....4, 17
Origin of the grange.... 18
Patrons of Husbandry... 3
Picnics ..... 16
of 1900..... 1
Pile of stones, a..... 22
Political campaign.....1, 2
Precepts, some good..... 13
Public patronage..... 22
Questions ..... 3
Resolutions ..... 5
Respect your business... 4
Reunion, grange..... 21
Rural free delivery..... 9
School-children ..... 7
systems ..... 12
teaching ..... 11
Self-reliance needed..... 13
Situations wanted..... 20
Stamp taxes..... 14
State fair reunion..... 23
Suggestion, a..... 18
Too hard..... 20
Topics for discussion.9, 11, 21
for May..... 15
Traveling library..... 3
Trimble, Dr. John*..... 19
Two wishes..... 16
Verdi and Cavour..... 14
What reading is worth.. 21
Where the fault lies..... 22
Wherewithal, the..... 23
Will it pay?..... 17
Wish, a..... 20
Woman's work committee 24
Wonder Tales..... 2
Working for a library.... 16
Year-book of 1900..... 20
the ..... 1


Household


About the dwelling-house. 22
After arbor day..... 14
five ..... 7
the holidays..... 9
All-hallowe'en games..... 2
Amusements for the young 13
Announcement-card ..... 3
Apples, only..... 13
April-fool day..... 13
Aprons ..... 21
Attar of roses..... 21
Baby's bib*..... 19
Balanced rations..... 16
Bedspread, knit*..... 15
Be quick..... 15
Bluing ..... 20
Books for Christmas..... 4
Bread-making ..... 21
Breaking in a colt..... 2
Buffalo-moth ..... 15
Cake receipts..... 12
Cape, a comfortable*..... 19
Care of clothing..... 19
" the hands..... 1
" " teeth ..... 17
Centerpiece* ..... 10
City of color and light... 24
Chapter on home-teaching 18
Cheese dishes.....8, 9
Cherries, with..... 18
Chest-development ..... 10
Children in school..... 15
Child's-coat* ..... 9
Chiming of the bells..... 14
China-collecting ..... 17
Choice chicken dishes.... 4
Christmas day..... 6
hints for tardy ones.... 6
suggestion ..... 6
the blessed holiday..... 6
tree ..... 4
Cocoa caramels..... 3
Cold comforts..... 23
feet and diphtheria.... 8
Confederate good things.. 2
Congress of Bible-study.. 3
Contrast in customs..... 9
Conveniences for baby*... 17
Convenient stock..... 24
Cottage cheese..... 24
Countrywoman's club..... 22
Crocheted cap*..... 11
lace ..... 17
Culinary triumph..... 20
Cupid's festival..... 9
Dainty work-basket*..... 3
Danish pudding..... 24
Decorations, table..... 20
Delicious desserts.....
Dish-rag ..... 19
Doilies*.....4, 5, 9, 12, 23
Doll's house..... 21
Domestic economy..... 17
Do you suppose?..... 10
Drawing-room mosaics... 2
Drawn-work* ..... 8
Drink, pudding and cake receipts ..... 15
"E" lace*..... 17
Easter jelly..... 12
salads ..... 12
suggestions ..... 13
trifles ..... 13
Evening caller..... 3
Evolution of a bookcase. 16
Expected guests..... 18
Family of dolls*..... 3
Farmer's wife who is happy ..... 3
Father's duty to children. 4
Favorite beverage..... 7
Feather boa crawling.... 7
Fire-crackers ..... 19
For small children..... 14
the cook..... 21
Fortune in tea-leaves..... 16
Fritters ..... 20
From the kitchen..... 2
Frosting ..... 6
Fruit jellies..... 23
puddings .....22, 23
Fourth-of-July party..... 19
Fur-lined house..... 13
Garden-seeds for children 18
Garnishes ..... 23
George pudding..... 12
Gloves, care of..... 13
Go chapel, the..... 20
Grapes ..... 24
Growing young..... 11
Heart of the home..... 9
Helen's room..... 15
Hints ..... 21
from my neighbors..... 14
and its influence..... 18
Home across the way.... 16
library ..... 20
life ..... 6
Honest dollar club..... 18
Honiton edging*..... 7
Hop-scotch* ..... 18
Hot cross-buns..... 12
weather drinks..... 22
House-cleaning ..... 12
Hygenic ..... 16
Iceland pudding..... 11
Illingworth pudding..... 11
Imperial tie*..... 11
In honor of Washington.. 10
winter quarters..... 12
Independence day..... 19
Indian-meal receipts..... 15
Just before Christmas... 5
Keep faith with children. 5
Kindergarten of seeds.... 24
Kitchen comforts..... 11
Knitted edge*..... 24
Lace making..... 22
stock-collars* ..... 22
Late arrival..... 5
Laundering flannels..... 19
Leaf design*..... 15
Lesson of thoughtfulness .....14, 15
Letter-writing ..... 17
Light housekeeping..... 1
Lincoln's birthday..... 10
List for boxes..... 19
Long, deep breath..... 11
Lover's luncheon, a..... 9
Loving-book, a..... 22
Making the most of a cent 1
Maple festival, a.....9, 12
Millinery* ..... 10
tools and terms..... 19
Moonlight nights, these.. 22
Mother's compensation... 8
Moth-proof box..... 18
Mourning millinery..... 12
Nature's fairies..... 24
Needlewoman's opportunities ..... 8
Netted lace*..... 16
New game in Denver..... 4
touches to old dishes.... .....1, 8, 11
year, the..... 8
Noon rest..... 15
Novel drapery..... 10
outdoor frolic..... 23
Nut-crack and pumpkin party ..... 2
Old folks at Christmas, the ..... 6
friends with new faces. 10
ladies' home..... 14
Origin of familiar phrase. 1
Other side, the..... 10
Increasing its circulation. 1
Our girls..... 6
poets ..... 9
Passing of old-time hospitality ..... 18
Peaches, with..... 23
Peanut-growing ..... 17
Picot-edge lace*..... 2
Pickles ..... 22
late ..... 1
Plant in disrepute, a..... 17
Pleasure of duty, duty of pleasure ..... 14
Pork pies.....6, 7
Preparing for winter..... 4
"Pretty soon, John"..... 12
Profit and loss..... 21
Puddings, delicious..... 14
Putting up fruit..... 19
Raglan shirt-waist*..... 14
Rag rugs..... 24
Rain and shine in New York .....20, 21
Receipts ..... 18
Recreative work..... 4
Red-letter dinner..... 22
Remember the birthdays. 13
Remodeled hosiery*..... 24
Replenishing the purse... 23
Rose-balls ..... 19
Roses .....19, 20
Rummage-sale ..... 6
Salmon ..... 14
Sauces ..... 6
Scalloped salsify..... 16
School cloaks..... 11
lunches ..... 24
Scolding and no scolding. 13
Seasonable receipts..... 15
Sensible travelers..... 23
Shamrock luncheon..... 21
Sewing for little fingers.. 15
She gave me, and I did eat ..... 20
Shirt-waists.....13, 17, 18
Simplified housekeeping.. 17
Situation, the..... 7
Sleeping with a baby..... 7
Stand-offish children..... 17
Strawberry chapter..... 16
Summer desserts..... 24
millinery ..... 16
Sunbonnet ..... 14
Smyrna lace..... 1
Tatted doily*..... 20
star* ..... 5
Teach children to read... 1
Teaching children to sew. 14
Thanksgiving dinner flavored with true hospitality ..... 4
Thesis matrimonial..... 23
Time to plant currant and gooseberry bushes..... 3
Tobacco habit..... 16
Tocsin of the soul..... 17
Toilet, convenient*..... 11
Trained wives and untrained husbands..... 11
Traveling helps..... 22
Turning the new leaf.... 8
Turnips ..... 24
Unexpected company..... 22
Useful herbs.....15, 16
Value of money..... 3
Various hints..... 3
Vegetable suggestions.... 1
Wanted—a boy..... 16
Wash-day hint..... 9
Wasting ..... 10
Water-cress ..... 14
Ways of cooking eggs.... 11
Weight of obligation..... 4
Wheel-lace* .....4, 24
When and how to read.. 5
children squabble..... 3
mothers cease to rule.. 20
school begins..... 1
we were married..... 18
Where oyster-boats come in ..... 21
While winter lingers..... 12
White Christmas, a..... 5
Winter reading..... 7
Woman's opportunities... 19
Worth knowing..... 10
Wouldn't give up..... 10
Zigzag lace*..... 16
Zwieback ..... 11


Fireside


Age of big trees..... 13
Alabama Yankee, an*.... .....2, 3, 4, 5, 6, 7, 8
Ancient cattle trade..... 13
Arithmetic 3600 years ago 13
Babyloulan records..... 14
Because of two wrongs*. .....20, 21
Big-footed girl of the Brazos* ..... 22
Bismarck's family name. 6
Burroughs, John..... 23
Captain Crusoe's feather fan ..... 17
Cat tactics..... 13
Census-counting machine. 2
Character not complexion 13
China's great wall..... 2
Chinese funerals..... 3
minister, the..... 2
Choice of Tom the drudge 11
Civic beauty and righteousness ..... 17
Cleanest people on earth. 20
Cocoanuts in Cuba..... 6
Cow-bells ..... 9
Crap-money, the..... 21
Creature of circumstances .....* 23
Cuckoo-clock man, the.... 11
Curious Hindu customs... 11
Customs of the ancients.. 8
Cutworm exterminator, a 15
Date of Christmas..... 6
Day after death, the*.13, 14
Divining-rod delusion..... 15
Dust in the atmosphere.. 19
Egypt's oldest man..... 20
Eleven poor boys..... 1
Excavations at Nippur... 11
Ezra Jordan's humble lesson ..... 16
Fair vision, a*..... 18
Famous bells..... 3
Family dinners in Turkey 9
Fate of a hypocrite, the. 7
Fishing with birds..... 4
Food ..... 14
German canaries..... 4
Ghost-story ..... 22
Glamour of riches..... 24
Gold-oak, the..... 9
Good manners..... 5
Grandma Dorkin's Christmas ..... 6
Handsome one, the..... 22
Historic game of ball.... 16
Hospital for birds..... 1
How do you do..... 3
flies walk on ceilings... 6
to send stamps by mail. 10
Independence of Idelly, the ..... 19
Indian courtship, an..... 22
Iron crown of Lombardy. 15
Japanese discovery of America ..... 15
mesaliance ..... 15
Jed Paseley's turnip crop. 5
Jenkins' folly..... 14
Keturah ..... 8
Key to beauty..... 15
Largest things in the world ..... 3
Lesson for the teacher... 20
Lieutenant's awakening.. 23
Life at Balmoral..... 3
Light on the trusts..... 19
Long-lived folks..... 3
Malarial mosquito..... 22
Manchester will, the..... 12
Maoris in New Zealand parliament ..... 24
Marriage by telephone, a. 10
Matrimonial questions.... 23
Mercy of the cyclone, the 20
Miss Dunning..... 16
Mississippi River..... 19
Mount Washington entanglement, a..... 18
Nation's drink-bill, the... 15
Navajo Indian homes..... 1
Nip and Tuck*..9, 10, 11, 12
Not horn for it..... 22
Numerous occupations for women ..... 8
Origin of name America.. 22
Paying his fare..... 15
Pin-factory, a..... 4
Peacock throne, the..... 22
Peking cart, the..... 11
Popular woman, a..... 5
Pueblo legend, a..... 6
Quality of her mercy..... 1
Queer fancies in Cuba.... 2
Red-cross birds..... 1
Research in Egypt..... 22
Righteous indignation.... 13
Rice in Russia..... 5
Rise of civilization in Egypt ..... 24
Rocky Mountain adventures ..... 21
Ruby as an omen, the... 3
Ruins of famous tower... 14
Russian caravan-tea..... 13
Samoan sentiment..... 3
Seven wonders of the world ..... 3
Shrewd sayings of Mr. Dooley ..... 16
Singular friendship, a.... 9
South African locusts.... 3
Spider's industry, a..... 9
Steel horse and the pale horse ..... 24
Story of Grandma Blackcap ..... 13
Summer-boarder business, the ..... 3
Taking the census..... 1
Thanksgiving in a cabin.. 4
True horse story..... 14
Turquoises ..... 22
Universal language..... 3
Value of old friendships. 2
West-pointer called down 21
Wife's missionary-money* 17
Without experience*..... 15
Woman's love of jewels.. 13
Women in politics..... 11


Poetry


Admiral Columbus protests ..... 11
All things work together for good..... 12
Along about August..... 22
As usual..... 12
Best o' fellers..... 13
Betrayal ..... 24
Blow, blow..... 11
Capturing colors..... 4
Christmas-time ..... 6
Coming of night, the..... 20

Confidence ..... 19
Daily motto, a..... 9
Day in June, a..... 17
Der last of Baalam..... 13
Elegy written in a country golf-links..... 17
Etiquette ..... 7
Failure and success..... 20
Farewells ..... 8
Fat friend's smile..... 6
Friendly hand..... 5
From day to day..... 13
Greatness ..... 16
Hand and heart..... 21
He told her she was beautiful ..... 20
How competition works.. 19
it happened..... 14
Hullo ..... 13
Inasmuch ..... 17
In calico..... 3
Innocence ..... 18
In the autumn days..... 2
Just be glad..... 22
Kipling on the future... 2
Knowledge outgrown..... 12
Lady champion, a..... 18
Leave faith..... 23
Lend a hand..... 15
Life in a city..... 22
Lilies' answer, the..... 13
Little girl that grew up.. 9
tea set..... 7
Willie ..... 8
Living dead, the..... 1
Love beyond the grave... 20
Man that wants a job... 9
Maud Muller in Kansas.. 23
Message, the..... 11
Milkmaid's song, the.... 17
Model young wife..... 11
Morning grass..... 22
Mother-in-law, the..... 14
Mumps ..... 2
Not quite the same..... 19
October days..... 1
Old gray barn, the..... 15
rhymes ..... 16
times and new..... 19
On her birthday..... 17
Pa's in politics..... 4
Path, the..... 9
Peace and good-will..... 6
Poor girl..... 21
Potter, the..... 8
Poultry-keeping for women ..... 9
Queen of the year..... 6
Raindeer, the..... 16
Recompense ..... 20
Rhyme of the quarters in 1860 ..... 7
Sea-gulls, the..... 23
Set toil to a tune..... 16
Silent battles, the..... 18
Situation, the..... 7
Sleep ..... 11
Some time..... 3
Song of contrasts..... 19
Sorrow past..... 24
Soul's spring cleaning.... 17
Spring ..... 13
Take heart..... 1
Thanksgiving song, a.... 4
They say..... 7
Three kisses..... 3
points of view..... 2
Too soon..... 15
Trust ..... 1
Trusting ..... 11
Twentieth-century girl... 16
Two chariots..... 17
schools ..... 15
Uncle David's summer hoarders ..... 1
Undertone ..... 11
Way of wisdom..... 14
Wedding song, a..... 21
White roses..... 22
When father was a boy.. 13
takes care of me..... 3
pa firs' et tobasco sance 5
the flies come back:.... 22
sorrow came..... 12
the world is young..... 4
Wish, a..... 20
World beautiful, the..... 21


## Sunday Afternoon


Ambassador of China, an 17
Are the children safe.... 16
Army kitten, an..... 13
Ashamed to tell mother.. 6
Babylonian explorations.. 13
Beautiful Bible, a..... 4
father, a..... 5
Bell of prayer, the..... 9
Best-hred woman, the... 23
Bible phrases..... 19
Boys, read this..... 20
Business man's complaint 18
Carrying burdens gracefully ..... 4
Characters ..... 2
Coming to love people.... 10
Connection of ethics with religion ..... 9
Conquering a lion..... 20
Courteous judge, a..... 18
Dangerous to get angry.. 17
Do and trust..... 19
what you can..... 1
Dutch Sabbath, the..... 3
End of the journey..... 14
Evil associations..... 13
Exaggerated ills..... 21
Faith ..... 16
Falling of a giant..... 17
Fear not..... 22
Field of wider usefulness 20
Flashes from Spurgeon... 19
Gayest fellow in the world ..... 16
General Grant started, how ..... 11
Get wisdom..... 19
Gigantic fiction..... 15
Giving and getting..... 10
God understands..... 10
Golden thought from great thinkers ..... 4
Great thoughts..... 17
Hard problem, a..... 17
Helpful thoughts..... 11
He went out..... 11
His faith..... 6
Hoeing your row..... 1
Home instructions as a safeguard against vice 14
Homeless singer, the..... 6
Homesickness ..... 18
Honest religion..... 17
How he paid his debt.... 14
one boy did it..... 3
I don't practise..... 17
Illustration of faith..... 18
Important society forgotten ..... 18
Import of the new year.. 7
Keeping young..... 15
Leave the shadows behind 4
Little sins..... 22
tangles ..... 8
Live in the kingdom of hope ..... 12
Lonely boy in a great city ..... 15
Lord's prayer, the..... 8
Manners .....3, 11
Maxims ..... 8
Minding my own business 24
Model stable-keeper..... 12
Modern hero, a..... 20
heroes ..... 14
Mother's loving eyes, the. 22
Mountain in the way, a.. 17
Never knew him..... 2
New heart, a..... 22
year's resolution..... 7
Object-lesson, an..... 19
Oldest book..... 11
Opportunity ..... 5
Piety of kings..... 22
Plain—as a pikestaff..... 12
Pointer for young men.. 20
Power of sympathy..... 18
Real beyond the ideal.... 15
Recognizing limitations... 2
Religion and emotion.... 23
Rich men with faults.... 9
Sammy's idea..... 22
Seeing the bright side.... 2
Self-reliance ..... 24
Sensible girl, a..... 12
Sherman's rigid honesty. 8
Silence is golden..... 9
Silent church-bell..... 19
Sojourner Truth gets a ride. 20
Something which he learned ..... 12
Spirit of good workmanship ..... 19
Spurgeon a friend to children ..... 6
Startling accusation..... 23
Sure of his job..... 9
Tendency to health..... 10
Text she liked, the..... 12
That doesn't trouble me. 18
Their hands full..... 22
They, too, loved him..... 1
To heaven incognito..... 22
Touch that tells..... 5
True knight, a..... 13
Uncle Tom's cabin..... 19
Unruly answer..... 11
Victory of principle over selfishness ..... 16
What he put on..... 10
the world needs..... 15
When we face the past... 11
Whistling boy..... 19
Where to sail..... 20
Who are saue..... 21
said it..... 8
Widow's mite, the..... 5
World beautiful, the..... 21


## Smiles


Accounted for..... 22
Adaptable names..... 16
Addition to the family.... 17
After the holiday..... 22
Alas, too true..... 20
All she noticed..... 12
that is important..... 2
Another matter..... 17
Antique saws..... 23
Appropriate epitaph..... 13
As they chose..... 19
Ate the buttons..... 7
At rest..... 5
the other end*..... 15
Audacious proposition.... 7
Authority, the..... 11
Badly mixed..... 22
Bad to splice..... 11
Beat time to it..... 3
Blessing, a..... 13
Blind as a bat..... 20
Blood-cell shakers..... 2
Boiled down..... 16
Born to lead..... 18
Borrowing habit..... 23
Breaking even..... 20
Bret Harte and the waitress ..... 4
Bride found her tongue.. 1
Bringing her out..... 17
Brought to reason..... 14
Capacity for repetition... 7
Called the turn..... 19
Cautious ..... 10
Champion ..... 3
Change in the menu..... 21
Cheaper meat..... 19
Childlike innocence..... 3
Chinese for unavailable, the ..... 13
talk ..... 5
Collecting his own..... 14
Comedy at front door.... 22
Commercial instinct..... 18
Contrary lot..... 8
Correct guess..... 14
Criminal poor..... 15
Curio-distributor ..... 7
Definition, a..... 22
Didn't want to hear her talk ..... 20
Different opinion..... 6
Dickens' charm..... 11
Didn't see the point..... 22
Diplomacy ..... 17
for home use..... 12
Discussing literature..... 4
Displaying his knowledge 22
Distressing mistakes..... 22
Drawn conclusion, a..... 11
Drew the line at cheese.. 8
Doing his best..... 14
Donkey's donk, the..... 6
Dooley on whisky..... 12
Easier way, the..... 14
Easy winner, an..... 12
Editor and poet..... 18
Editor's dramatic entrance ..... 5
Eggs and eggs..... 21
Eli on McIntyre and Jones 20
Eliza's experiment..... 3
Equal partners in distress ..... 22
Evolution of a lemon..... 8
Expedient, an..... 14
Explaining things*..... 17
Fair warning..... 16
Faith in her ways..... 17
Formula of painful memory ..... 18
Gallant judge, a..... 19
Game to the last..... 16
Garland's greatness..... 12
Gem of London humor.... 20
Generous ..... 3
Get their fees..... 11
Giving him a chance.... 22
Good cause to mourn..... 21
joke ..... 12
story ..... 4
Grievance of an authoress 15
Grounds for divorce..... 4
Guilty conscience..... 19
Handy ..... 21
Hardened to it..... 11
He failed..... 19
knew ..... 17
surprised himself..... 9
was all fixed..... 14
Heredity ..... 14
Her electric spark..... 2
His age..... 22
business ..... 6
defaultion ..... 13
honor satisfied..... 6
idea of it..... 22
opinion ..... 8
point of view*..... 21
preference ..... 22
theory ..... 21
thoughtfulness ..... 19
way ..... 7
Higher calling..... 16
How he cured her..... 3
he found them..... 21
Hotel attractions..... 23
Hustling in hades..... 16
Important point..... 15
In Chicago..... 11
memory of other days.. 21
the wrong pew..... 8
Irony of fate..... 12
It tried her faith..... 21
wasn't ..... 20
Johnny Green's essay*... 1
Jostled effect..... 22
Jubilee, a..... 9
Keeping everlastingly at it ..... 22
Kipling crushed a hore.. 1
Kissed ma, too..... 16
Knows what he is about. 20
Labor saved..... 9
Legal courtesy..... 15
Literally ..... 15
Little misty, a..... 8
Looking forward..... 22
higher ..... 21
Lord Wolseley's mistake. 13
Lover's plans upset..... 21
Lumber king..... 23
Made the prayer of his life ..... 5
Making remnants..... 14
Mama had to explain.... 3
Master's sober request... 18
Matter of altitude..... 7
Mercenary view of it.... 21
Miss on girls..... 18
Mistaken identity..... 11
Modest Celt..... 21
Modern mother's diary... 19
Modesty of childhood.... 22
Monkeys and gloves..... 22
Mr. Smith's warning..... 13
Much ado about nothing.. 7
Natural mistake..... 21
Never said a word..... 8
suited ..... 20
New version of old tale.. 14
name for it..... 17
Nice, but not satisfactory 14
Noise was the same..... 22
Nomenclature ..... 17
Not certain about it..... 17
in his case..... 4
to be hurried..... 23
too pure..... 20
up to the mark..... 20
used to it..... 23
Now buys elsewhere..... 11
Nursery classic..... 7
Of course..... 19
Old idea..... 21
Only loss..... 20
Our new neighbors..... 2
Out-of-door primer..... 8
Parried the thrust..... 18
Partners to the last..... 21
Payment in full..... 17
Plausible story..... 16
Pleasant surprise..... 21
Pa's lesson in geography. 10
Pleasing the epicures.... 14
Polite professor..... 21
Poor bridegroom..... 18
Postprandial orator..... 16
Practical side of it..... 13
Precocious babe..... 11
Peculiar girl, a..... 20
Preferring lion to shrew.. 3
Preparatory ..... 22
Presence of mind..... 13
Quick diagnosis..... 9
Quite a trick..... 6
Rara avis..... 16
Ready for hostilities..... 18
Redeeming quality..... 22
Reduced ..... 21
Roll-call ..... 12
Romance ended..... 21
Ruse, a..... 20
Sacred promise..... 23
Sacrifice ..... 7
Salt River discussed in the house..... 11
Same old story..... 6
Sexton's wit..... 5
She earned it..... 22
expected too much..... 18
knew the sign..... 4
was satisfied..... 22
Shield and buckle..... 11
Silencing hubby..... 21
Silent letter, the..... 19
Small brother's revenge.. 6
Smoking glass*..... 22
So anxious to meet him.. 12
friendly ..... 19
Something wrong..... 11
Stood up for her..... 19
Stories of a bishop..... 4
Sweet revenge, a..... 20
That's all..... 9
Their platform..... 9
Then the other girl understood ..... 11
This Boer war..... 11
Timely ..... 4
Too healthy..... 4
honest ..... 21
late ..... 15
Took advice..... 14
Tough luck..... 15
True enough..... 11
Trunkless body, a..... 20
Try it and see..... 20
Twain's political speech.. 13
Two knights..... 19
mashed potatoes*..... 16
Unfortunate mash..... 8
name ..... 8
statement ..... 17
Unguarded speech..... 12
Unlucky throw, an..... 21
Unobserving ..... 5
Unpardonable ..... 20
Upsetting arithmetical tradition ..... 21
Useless adjunct, a..... 19
Very dear..... 8
forgetful ..... 6
observant ..... 17
Wanted an advance..... 20
Warm essay..... 23
Way to success..... 12
Well met..... 19
Went around..... 21
What Belgians are noted for ..... 19
When Juba hit it..... 18
Where it hurt the worst.. 2
While ma's up-stairs..... 7
Why the ghost vanished. 17
Yearning, a..... 13
Yours not to reason why 10



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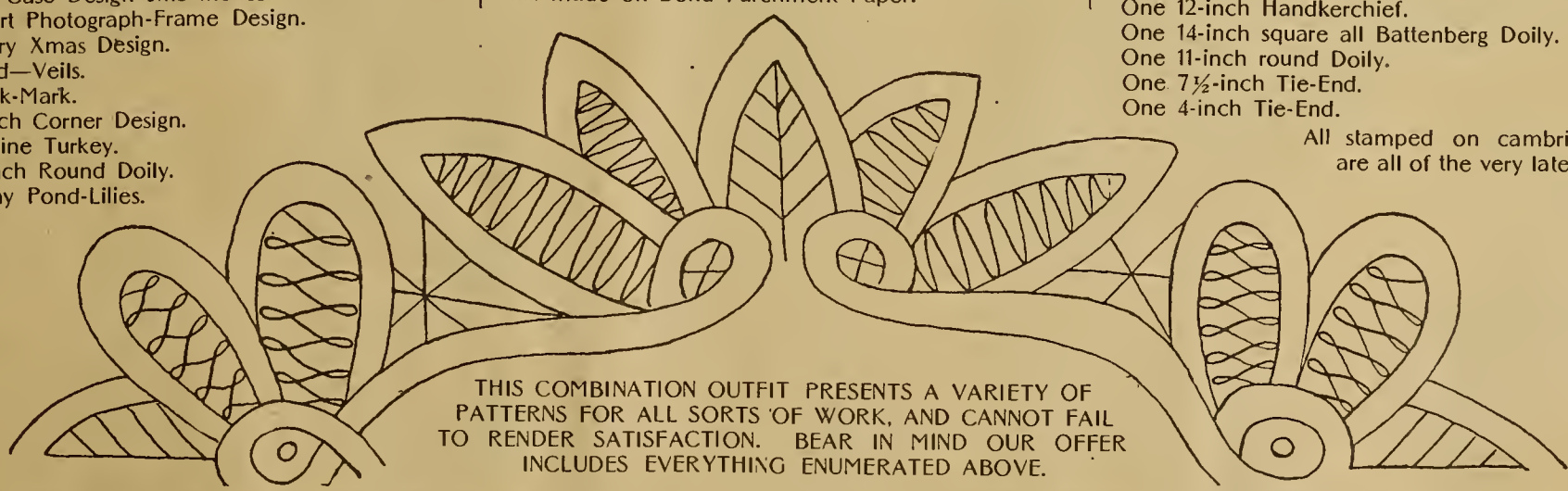


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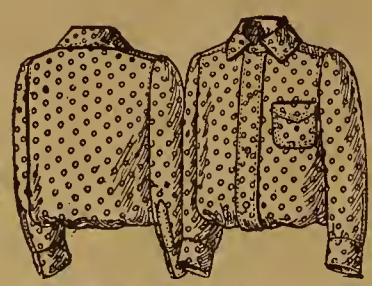

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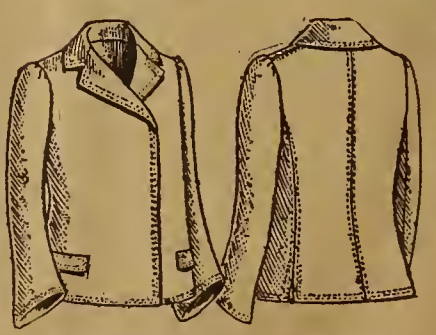

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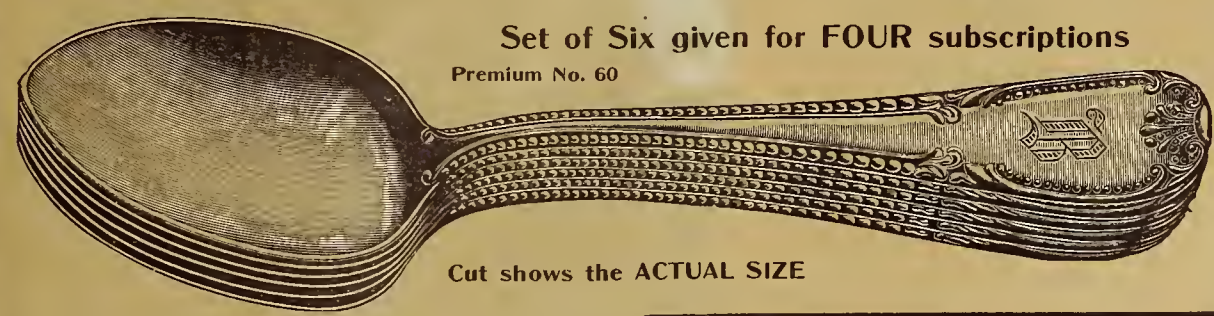

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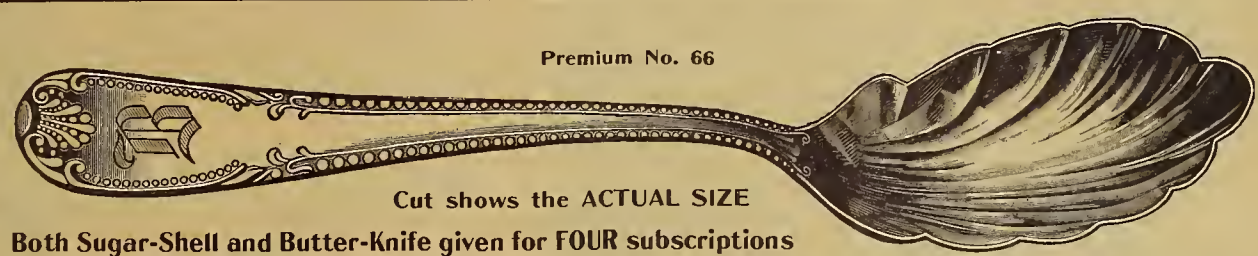
The base of this ware is solid nickel-silver metal, which is the best white metal known for the base of silver-plated ware, because it is so hard and so white that it will never change color and will wear for a lifetime. On top of this superior nickel-silver base is plated the full STANDARD amount of pure coin-silver.

## FROM MANUFACTURER TO USER

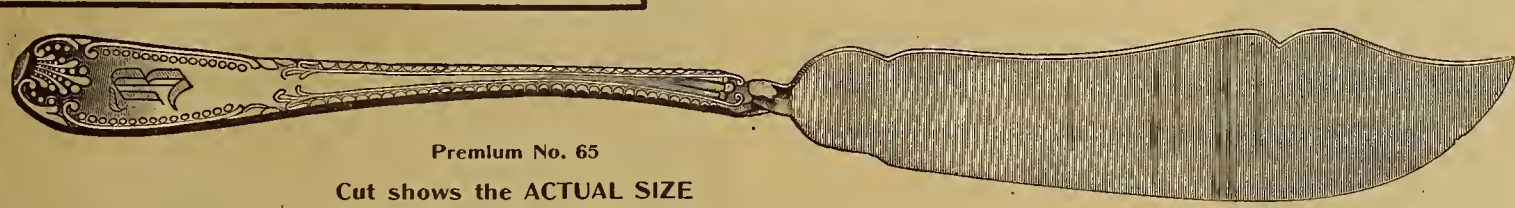
There is no middleman's profit added to the price of this ware, as we are satisfied to handle it without profit to get subscriptions and clubs, and pass it from the manufacturer to the user at manufacturer's cost and the additional expense of postage and wrapping.



Premium No. 66

Cut shows the ACTUAL SIZE

**Both Sugar-Shell and Butter-Knife given for FOUR subscriptions**



Premium No. 65

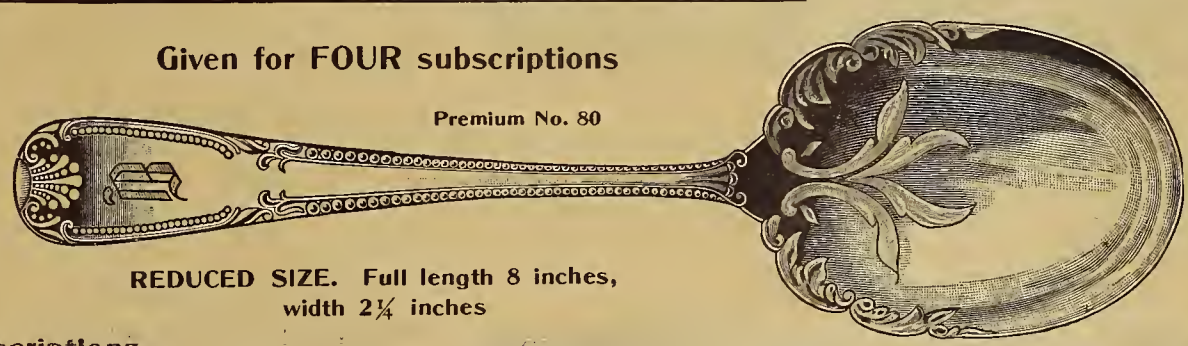
Cut shows the ACTUAL SIZE

**Guarantee** We absolutely guarantee every piece of this ware to be exactly as it is described and to give full and entire satisfaction or money cheerfully refunded.

## GIVEN FOR CLUBS

The clubbing price of Farm and Fireside is 35 cents a year, twenty-four numbers. There are lots of your friends who will take it if you but ask them. Go out among them, get up a club of four or six subscriptions and get any of the ware on this page FREE. It costs you nothing but a little effort. Your own subscription or renewal may count as one in the club.

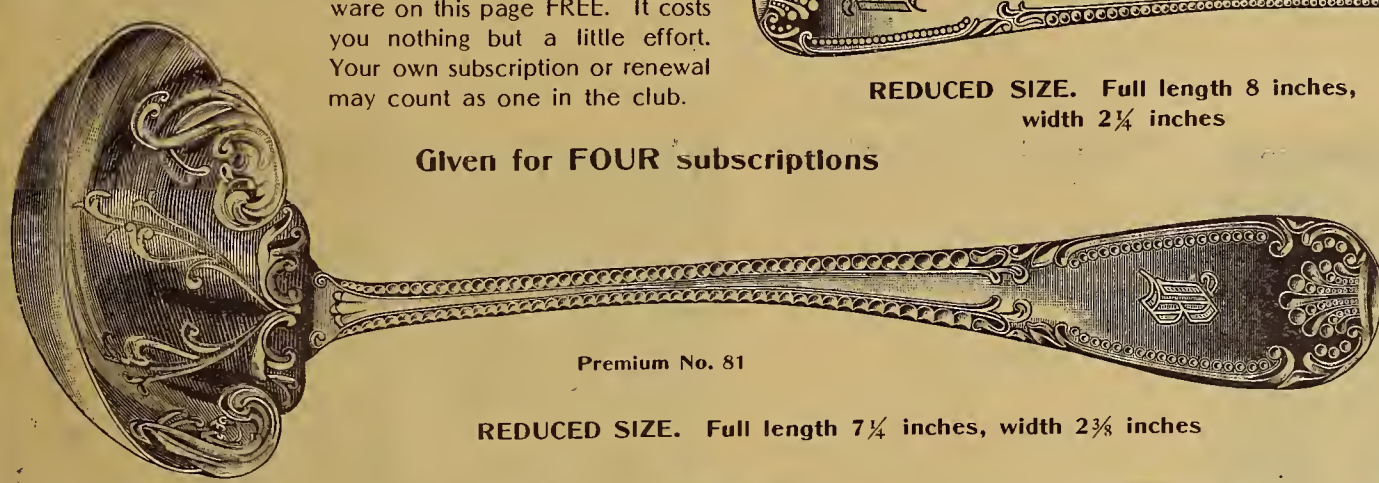
**Given for FOUR subscriptions**



Premium No. 80

REDUCED SIZE. Full length 8 inches, width 2¼ inches

**Given for FOUR subscriptions**



Premium No. 81

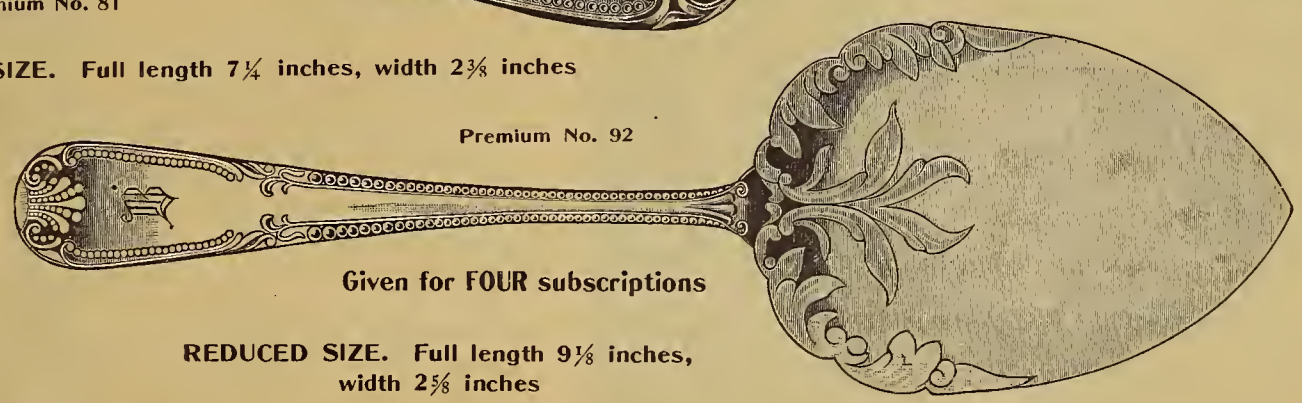
REDUCED SIZE. Full length 7¼ inches, width 2⅜ inches

## ANY INITIAL LETTER

Each piece of this ware engraved free of charge with an initial letter in Old English. Only one letter will be engraved on each piece. Always state your choice.

## Will Stand Any Test

To test this silverware use acids or a file. If not found to be plated with the full STANDARD amount of pure coin-silver and the base solid white metal, and exactly as described in every other particular, we will refund your money and make you a present of the subscription. If returned to us we will replace free of charge any piece of this ware damaged in making the test.

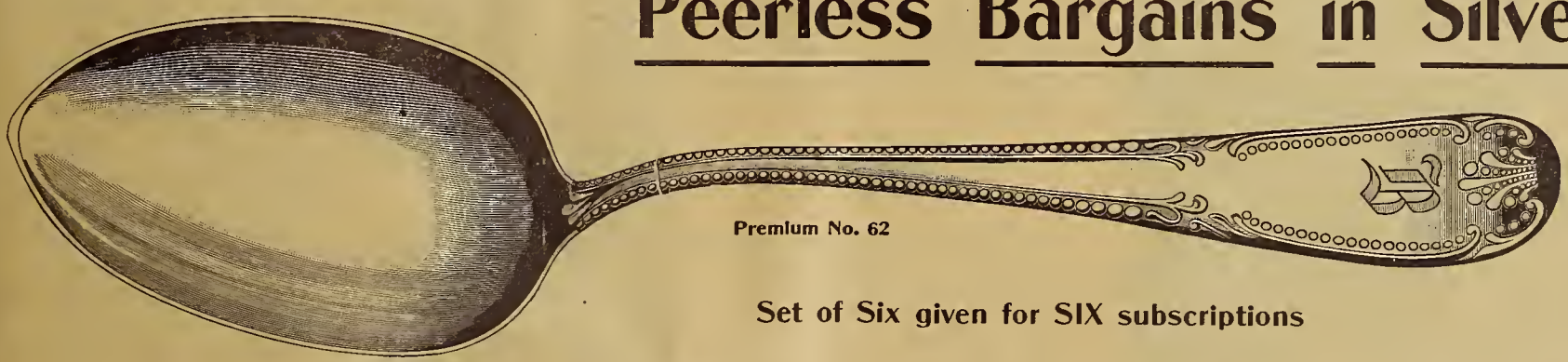


Premium No. 92

**Given for FOUR subscriptions**

REDUCED SIZE. Full length 9⅛ inches, width 2⅝ inches

# Peerless Bargains in Silverware



Premium No. 62

Cut shows the ACTUAL SIZE

**Set of Six given for SIX subscriptions**

## SILVERWARE FREE

For securing Clubs of Subscriptions to the Farm and Fireside . . . . . .

Set of 6 Teaspoons given for sending four yearly subscriptions
Set of 6 Tablespoons given for sending six yearly subscriptions
One Berry-Spoon given for sending four yearly subscriptions
One Pie-Knife given for sending four yearly subscriptions
One Gravy-Ladle given for sending four yearly subscriptions
Sugar-Shell and Butter-Knife (both) for sending four yearly subscriptions

*(RENEWALS and new names, including a club-raiser's own subscription, can be counted in clubs. No reduction allowed in the clubbing prices)*

## PREMIUM OFFERS

We will send the Farm and Fireside one year and the Silverware at these prices:

| | |
|---|---|
| The Farm and Fireside 1 year and a Set of 6 Teaspoons for | $ .75 |
| The Farm and Fireside 1 year and a Set of 6 Tablespoons for | 1.25 |
| The Farm and Fireside 1 year and Berry-Spoon for | .65 |
| The Farm and Fireside 1 year and Pie-Knife for | .65 |
| The Farm and Fireside 1 year and Gravy-Ladle for | .65 |
| The Farm and Fireside 1 year and Butter-Knife and Sugar-Shell (both) | .60 |

*(When any one of the above offers is accepted the club-raiser may have the regular cash commission or the name may be counted in a club)*

Postage or expressage paid by us in each case

ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO

# THREE GRAND PICTURES

**Given for Sending TWO Yearly Subscriptions to the Farm and Fireside**

KISS ME

By means of this series of pictures lovers of the beautiful are enabled to have in their homes and enjoy famous works of art which have stood the test of time and found a permanent place in popular favor.

WATERFALL BY MOONLIGHT

## We Will Send One

# FREE

The Clubbing rate of the Farm and Fireside without a premium is THIRTY-FIVE cents, but as a SPECIAL METHOD of introducing these pictures we give any ONE of them FREE to every one who sends THIRTY-FIVE cents for one year's subscription to the Farm and Fireside, provided the picture is selected at the time the subscription is sent in.

*(When this offer is accepted no commission will be allowed and the name will not count in a club)*

**The Farm and Fireside One Year and any TWO of the Pictures for Only**

# 50 Cents

*(When this offer is accepted the club-raiser may have the regular cash commission or the name be counted in a club)*

"The illustrations herein can convey no adequate idea of the size, beauty and elegance of the pictures."

THE PICTURES ARE ON THE VERY FINEST PICTURE-PAPER, IVORY-FINISHED, HEAVY WEIGHT, AND IN EVERY WAY ARE SUITABLE FOR FRAMING.

## VALUE

Art-stores are now selling engravings of these famous paintings at from $2.50 to $10.00 each. Many competent judges, having made a careful comparison, pronounce our reproductions more attractive and desirable than these very expensive engravings.

## QUALITY

The pictures have been selected with the greatest care, keeping in mind that they should be artistic, pleasing and inspiring. As such they will be ornamental, of the greatest artistic helpfulness and an influence for good.

## SIZE

The pictures including margins are twenty by twenty-five inches in size, FIVE HUNDRED SQUARE INCHES, or about *four times* the size of this printed page. Without margins they are about sixteen by twenty inches.

THE WOODLAND MOTHER

No such collection of high-class pictures has ever been offered on anything like our liberal terms. Having gone to great expense to prepare for the production of these pictures, we are offering them absolutely without profit to ourselves.

IMMACULATE CONCEPTION

## CHOOSE FROM THIS LIST

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AFFECTION | *Holmes* | No. 783 | DEFIANCE, or STAG AT BAY | *Landseer* | No. 789 | WATERFALL BY MOONLIGHT | *Rieger* | No. 795 |
| IMMACULATE CONCEPTION | *Murillo* | No. 784 | KISS ME (Child and Dogs) | *Holmes* | No. 790 | THE HORSE FAIR | *Bonheur* | No. 796 |
| PHARAOH'S HORSES | *Herring* | No. 785 | THE LITTLE SHEPHERDESS | *Koller* | No. 791 | WASHINGTON CROSSING THE DELAWARE | | No. 797 |
| QUEEN OF FLOWERS | *Lefler* | No. 786 | PORTRAIT OF WASHINGTON | *Stuart* | No. 792 | THE WOODLAND MOTHER | *Carter* | No. 798 |
| AFTER WORK | *Holmes* | No. 787 | THE FINDING OF MOSES | *Schopin* | No. 793 | THE STRAW YARD | *Herring* | No. 799 |
| CHRIST BEFORE PILATE | *Munkacsy* | No. 788 | CAN'T YOU TALK? | *Holmes* | No. 794 | IN MEMORIAM | *Edwards* | No. 800 |

*The pictures will be sent by mail, securely packed and postage paid. Order by the premium numbers. Entire satisfaction guaranteed.*

**ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO**

154